

# Science Final Revision

## 1 Choose the correct answer:

1. The device of measuring weight is .....  
**a** sensitive scale      **b** spring scale      **c** double pan scale      **d** digital scale
2. The weight of a body on the Earth's surface is 6 Newton, so its weight on the moon surface is .....  
**a** 1 kg      **b** 1 Newton      **c** 6 Newton      **d** 6 kg
3. The mass of half a liter of distilled water equals .....  
**a** 100 gm      **b** 150 gm      **c** 500 gm      **d** 1000 gm
4. .... nearly equals the mass of one paper clip.  
**a** Gram      **b** Kilogram      **c** Ton      **d** Newton
5. The planet on which of the body's weight equals 6 times as its weight on the moon is .....  
**a** Earth      **b** Mars      **c** Jupiter
6. The weight of a body, whose mass is 10 kg on Earth's surface nearly equals .....  
**a** 10 N      **b** 100 N      **c** 1000 N
7. A newton is the weight of a ball of mass .....  
**a** 8 grams      **b** 80 grams      **c** 8 kg      **d** 100 grams
8. The tool which is used to measure the weight is .....  
**a** spring scale      **b** digital scale      **c** two-arm scale
9. Heat insulators are used in making all of the following except .....  
**a** cooking pots      **b** woolen clothes      **c** handle of iron
10. .... is used to make the iron handle.  
**a** Copper      **b** Iron      **c** hydrogen peroxide      **d** mercury
11. Cooking utensils are provided with handles made up of .....  
**a** plastic      **b** iron      **c** aluminum      **d** copper
12. A substance which is a good conductor of heat is .....  
**a** wool      **b** iron      **c** plastic      **d** wood
13. The best metal in conducting heat is .....  
**a** aluminum      **b** iron      **c** copper      **d** mercury
14. Ann can sterilize the thermometer by using .....  
**a** water      **b** ethyl alcohol      **c** benzene
15. Mercury remains in liquid state between two temperatures .....  
**a** (-39 : 357) °C      **b** (39 : -357) °C      **c** (0 : 100) °C
16. The liquid which is used in the manufacture of Celsius thermometer is .....  
**a** water      **b** alcohol      **c** hydrogen peroxide      **d** mercury

17. The main idea of making a thermometer is changing the ..... of the liquid according to the changing of temperature.

- a** density                      **b** mass                      **c** volume                      **d** weight

18. Melting point of ice is ..... °C.

- a** 100                      **b** 0                      **c** 37

19. Every degree in the medical thermometer is divided into ..... parts.

- a** 3                      **b** 5                      **c** 6                      **d** 10

20. Celsius is the measuring unit of .....

- a** weight                      **b** temperature                      **c** mass                      **d** volume

21. Oxygen is produced from ..... process.

- a** oxidation                      **b** burning                      **c** photosynthesis                      **d** respiration

22. The gas which is used with acetylene in welding metals is ..... gas.

- a** carbon dioxide                      **b** oxygen                      **c** ozone                      **d** nitrogen

23. A rapid combination between oxygen and an element produces .....

- a** heat                      **b** light                      **c** (a) and (b)

24. Hydrogen peroxide is used in preparing ..... gas.

- a** oxygen                      **b** carbon dioxide                      **c** nitrogen                      **d** hydrogen

25. From the properties of oxygen, it is ..... soluble in water.

- a** scarcely                      **b** not                      **c** rapidly

26. Oxygen is ..... than air.

- a** heavier                      **b** cooler                      **c** lighter                      **d** hotter

27. Oxygen is present in the atmosphere in a gaseous state in the form of molecules whose structure is .....

- a** O                      **b** O<sub>2</sub>                      **c** O<sub>3</sub>                      **d** O<sub>4</sub>

28. The main source of oxygen in air is ..... process.

- a** respiration                      **b** exhalation                      **c** photosynthesis

29. The carbon dioxide is used in the industry of .....

- a** steel                      **b** fertilizers                      **c** gun powder                      **d** soft drinks

30. .... gas is prepared by adding dilute hydrochloric acid to calcium carbonate.

- a** Carbon dioxide                      **b** Nitrogen                      **c** Oxygen

31. Photosynthesis process in the plant depends on the presence of .....

- a** nitrogen                      **b** ozone                      **c** carbon dioxide                      **d** oxygen

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32. One of the properties of carbon dioxide is being .....  
**a** heavier than air      **b** lighter than air      **c** scarcely soluble in water
33. The bone that connects the ribs from front is the .....  
**a** femur      **b** skull      **c** sternum      **d** humerus
34. We can extinguish fires using ..... gas.  
**a** oxygen      **b** nitrogen      **c** carbon dioxide      **d** ozone
35. Which of the following gases have great percentage in atmospheric air?  
**a** Oxygen      **b** Carbon dioxide      **c** Nitrogen
36. Nitrogen represents ..... of the Earth's atmosphere.  
**a** 21%      **b** 78%      **c** 10%      **d** 0.03%
37. Humerus bone is one the bones of .....  
**a** lower limbs      **b** backbone      **c** upper limbs      **d** axial skeleton
38. The gas which turns limewater turbid is ..... gas.  
**a** carbon dioxide      **b** oxygen      **c** ozone      **d** nitrogen
39. Which of the following is from slightly movable joints? .....  
**a** 9 pairs      **b** 10 pairs      **c** 11 pairs      **d** 12 pairs
40. Which of the following is responsible for keeping the body balance? .....  
**a** Spinal cord      **b** Cerebellum      **c** Medulla oblongata
41. The nerve cell body consists of .....  
**a** nucleus      **b** cytoplasm and plasma membrane      **c** all of the previous
42. .... is surrounded with fatty layer.  
**a** Axon of nerve cell      **b** Cerebellum      **c** Spinal cord
43. Reflex action takes place in .....  
**a** brain hemispheres      **b** medulla oblongata      **c** Spinal cord
44. Number of the brain nerves is ..... pairs of nerves.  
**a** 12      **b** 21      **c** 31
45. The cerebellum is responsible for .....  
**a** memory      **b** reflex action      **c** body balance      **d** thinking
46. The centers of thinking and memory lie in the .....  
**a** medulla oblongata      **b** 2 cerebral hemispheres      **c** cerebellum      **d** spinal cord
47. The grey matter in the spinal cord has ..... shape.  
**a** H      **b** F      **c** A

48. Myelin sheath surrounds the .....

- a** cerebellum                      **b** spinal cord                      **c** nerve cell axon

49. The axon is covered with a fatty substance called .....

- a** grey matter                      **b** synapse                      **c** myelin sheath                      **d** dendrites

50. All of the following are from the components of central nervous system except .....

- a** spinal nerve                      **b** 2 cerebral hemispheres  
**c** spinal cord                      **d** medulla oblongata

51. One of the slightly movable joints is the ..... joint.

- a** thigh                      **b** shoulder                      **c** wrist                      **d** knee

52. Joint is the location where ..... meet.

- a** two bones                      **b** muscle and bone                      **c** two muscles

53. The ribcage in the human body consists of ..... of ribs.

- a** 9 pairs                      **b** 10 pairs                      **c** 11 pairs                      **d** 12 pairs

54. Among the freely movable joints are ..... joints.

- a** knee                      **b** thigh                      **c** elbow                      **d** skull

55. .... are the joints that allow the movement in one direction.

- a** Freely movable joints    **b** Immovable joints    **c** Slightly movable joints

56. Among the immovable joints is .....

- a** shoulder joint                      **b** wrist joint                      **c** elbow joint                      **d** skull joints

57. Which of the following is from joints? .....

- a** Femur                      **b** Shaft                      **c** Knee                      **d** Pelvic

## 2 Write the scientific term:

1. The amount of matter in an object.

2. A tool is used to measure body weight.

3. The force with which a body is attracted to the Earth.

4. The measurement unit of weight which is almost equal to weight of a body its mass is 100 grams.

5. The measuring unit of mass which equals the mass of one liter of distilled water at the normal temperature.

6. A device that is used to measure the weight of an object.

7. Materials that do not let heat flow through.

8. The materials that let heat flow through.

9. The fastest metal in conducting heat.

10. Degree of hotness or coldness of an object.



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11. A device used to measure the temperature of liquids.
12. The used liquid in thermometers.
13. The liquid that is used in sterilizing the medical thermometer.
14. A device is used to measure the temperature of human body.
15. A device is used to measure the temperature.
16. The thermometer which contains constriction.
17. Mixture of gases surrounding the Earth.
18. The gas that doesn't bum but it helps in burning.
19. A rapid union between oxygen and an element producing heat and light.
20. A gas molecule consists of three atoms of oxygen.
21. A flame is used in cutting and welding metals.
22. A chemical substance that increases the speed of the reaction without changing in its quantity and structure.
23. The substance that remains without a change in it properties.
24. A gas that is used for diving and climbing.
25. The gas that exists in the atmosphere and protects the Earth from harmful radiations coming from the Sun.
26. The layer that consists of 3 Oxygen atoms ( $O_3$ ) and protects the Earth from harmful radiation.
27. It consists of two hydrogen atoms and one Oxygen atom.
28. A gas in which is prepared by using hydrogen peroxide.
29. A gas is used in making soft drinks.
30. The gas that represents 0.03% of atmospheric volume.
31. A gas that turns clear limewater into milky.
32. The gas that raises the temperature of the Earth when its percentage increases in air.
33. A gas used to put off fires.
34. A gas that is produced during burning and respiration of living organisms.
35. A gas that is used in making soft drinks and bread.
36. The chemical substance that is used to detect (test) the presence of  $CO_2$  gas.
37. The gas that doesn't burn and doesn't help in burning and is used in making fire extinguishers.
38. Gas which its percentage in the atmospheric envelope represents 78%.
39. A gas that composes the protein substance that builds up our bodies.

40. A gas is used by legumes in formation of their proteins.
41. The building unit of the nervous system.
42. The basic structure of the nervous system.
43. A bony box that contains cavities for eyes, ears and nose.
44. Automatic response of the body to different stimuli.
45. The part of the brain that is responsible for regulating the heartbeats.
46. An organ responsible for reflex action.
47. They are 31 pairs of nerves emerge from the spinal cord.
48. A system that consists of the brain, the spinal cord and nerves.
49. The joint which allows the movement in all directions.
50. It is the outer surface of cerebral hemispheres that has a grey color.
51. Automatic response of the body to different stimuli such as light and heat.
52. They are 12 pairs of nerves emerging from the brain.
53. They are branches extending from the neuron's body.
54. They are nerve endings connect to muscles or form a synapse with other neurons.
55. It consists of cerebrum, cerebellum and medulla oblongata.
56. It consists of a grey matter in the form of H letter surrounded by the white matter.
57. It is the nerves which emerge from the central nervous system.
58. It is maintaining the balance of the body during movement.
59. It is a cylindrical axis covered with a fatty layer called myelin sheath.
60. It contains the centers of thinking, memory and controlling the voluntary movement of the body.
61. It lies at the back area of the brain below the two hemispheres.
62. The main control center in your body that directs and coordinates all the processes, ideas, behaviors and emotions.
63. A system responsible for integration and coordination between systems of the human body.
64. The joints that allow the movement in one direction.
65. It consists of the skull, Backbone and rib cage.
66. It is a part of the axial skeleton that consists of 33 vertebrae with cartilages between them.
67. The location of bones meet and allow moving.

# Science Final Revision

## 3 Complete each of the following sentences:

1. The measuring unit of weight is ....., while the measuring unit of mass is .....
2. The force by which the body is attracted to the Earth is called .....
3. Weight of an object can be measured by using the .....
4. Mass is a constant value and it is not affected by changing .....
5. As the mass of the planet on which the body exists increases, the ..... of the planet increases and ..... of the body increases.
6. Mass does not change with the change of .....
7. The scale of medical thermometer starts from ..... °C and ends at ..... °C.
8. There is a constriction in the ..... thermometer.
9. The ..... thermometer is used to measure the water temperature.
10. Oxygen gas is prepared by the decomposition of ..... in the presence of ..... as a catalyst.
11. In air, oxygen gas exists by ..... % and nitrogen gas exists by percentage ..... %.
12. Oxygen gas is prepared in laboratory from ..... in the presence of .....
13. Oxygen is produced from ..... process and carbon dioxide is produced from ..... process.
14. Divers use ..... cylinder during diving under water.
15. During photosynthesis process in green plants ..... gas is produced, while burning of organic materials produces ..... gas.
16. Oxygen combines with acetylene gas to produce .....
17. The oxygen gas is produced from ..... during ..... process.
18. The rapid union (reaction) between oxygen and other elements producing heat and light, is called ....., but if this union (reaction) is slow and accompanied by the presence of moisture, it is called .....
19. Water consists of the union of one atom of ..... with two ..... atoms.
20. Percentage of carbon dioxide gas in the atmospheric air is ..... and has the symbol .....
21. Exhaled air contains ..... gas which turbid .....
22. Limewater turns milky in presence of ..... due to the formation of ..... which is insoluble in water.
23. Carbon dioxide is prepared in by adding ..... to the powder of .....

24. Heat is a form of..... that transfers from the ..... temperature object to the low temperature object.
25. Handles of cooking pots are made of .....
26. Materials are classified according to heat conductivity into .....
27. .... conducts heat faster than aluminum.
28. From the substances which are bad conductors of heat .....
29. Handles of cooking utensils are made up of ..... and .....
30. Heat transfers from the..... temperature object to the ..... temperature object.
31. We can use ..... thermometer to measure the temperature of different liquids and ..... thermometer is used in measuring the temperature of the human body.
32. The medical thermometer is graduated from ..... to .....
33. The scale of Celsius thermometer starts from ..... °C and ends at ..... °C.
34. Water freezes at ..... °C and boils at ..... °C.
35. The main idea of making a thermometer is the change in ..... of the Liquid by changing .....
36. The neuron consists of two main parts .....
37. .... controls the reflex action (reflexes).
38. Nervous system consists of two main systems which are ..... and .....
39. The number of the cranial nerves is ..... and the number of the spinal nerves is .....
40. The axon of nerve cell is surrounded by .....
41. The peripheral nervous system consists of ..... nerves and ..... nerves.
42. The centers of thinking and memory lie in .....
43. The brain consists of cerebrum, ..... and .....
44. The knee joint is considered from ..... joints, while the wrist joint is considered from ..... joints.
45. The ribcage protects ..... and .....
46. The backbone consists of ..... vertebrae.
47. The human axial skeleton consists of ....., rib cage and .....
48. The number of vertebrae of vertebral column in human body is ..... and the number of spinal nerves is ..... pairs.
49. The number of cranial nerves is ..... pairs, while the number of spinal nerves is ..... pairs.

# Science Final Revision

**4 Give reason for each of the following:**

- 1. Cooking pots are made of aluminum.  
.....
- 2. The handles of cooking pots are made up of plastic.  
.....
- 3. Aluminum is used in manufacturing of cooking pans.  
.....
- 4. Leaving spaces between the railway bars.  
.....
- 5. There is a constriction in the medical thermometer.  
.....
- 6. Mercury is used in thermometers.  
.....  
.....
- 7. Mercury gives a wide range to measure the temperature.  
.....
- 8. We must shake the medical thermometer well before using.  
.....
- 9. Manganese dioxide still without change in quantity and properties during preparation of oxygen.  
.....
- 10. Ozone gas is very important in nature.  
.....
- 11. Oxygen gas is collected by downward displacement of water.  
.....
- 12. Using oxy-acetylene flame in cutting and welding metals.  
.....
- 13. Bridges which are made of iron are painted.  
.....
- 14. The mass of a piece of cleansing wire increases after burning.  
.....
- 15. Mountain climbers carry Oxygen Cylinders.  
.....

16. Carbon dioxide gas is used in extinguishing fires.

.....

17. Clear limewater becomes turbid when carbon dioxide passes.

.....

18. Yeast is added to the dough on making bread.

.....

19. CO<sub>2</sub> gas is used in extinguishing fires.

.....

20. The increase of CO<sub>2</sub> gas amount is harmful.

.....

21. Clear lime water is used to detect the presence of CO<sub>2</sub> gas.

.....

22. The environment suffers from the increase of CO<sub>2</sub> gas.

.....

23. Air is the main source of nitrogen.

.....

24. The brain is located inside the skull **OR** the spinal cord extends through the inside of back bone.

.....

25. The cerebrum is a very important part of the brain.

.....

26. Damage of the medulla oblongata causes death.

.....

27. Backbone consists of 33 vertebrae with cartilages between them.

.....

28. Lower limbs are very important.

.....

29. The upper limbs are very important.

.....

30. Knee joints are from slightly (limited) movable joints.

.....

31. Skull joints are from immovable joints.

.....

32. Wrist and thigh joints are from freely (wide) movable joints.  
.....

**4** What happens if?

1. The distance between a person in a balloon and the center of the Earth increases OR an object moves away from the center of the Earth.  
.....

2. You shake the medical thermometer before using it.  
.....

3. There is no oxygen in the atmospheric air.  
.....

5. Hydrogen peroxide is dropped over manganese dioxide.  
.....

6. Ozone layer is decayed.  
.....

7. There are no spaces between railway bars.  
.....

8. An iron door wetted by water is exposed several days to humid air.  
.....

9. The mass of cleansing wire after burning.  
.....

10. Dilute hydrochloric acid is dropped over calcium carbonate.  
.....

11. Exhaled air passed through clear limewater.  
.....

12. Increasing the percentage of carbon dioxide gas in the atmosphere.  
.....

13. Adding yeast to dough on making bread.  
.....

14. Nodular bacteria are removed from plants roots.  
.....

15. The cerebellum is shocked hardly.  
.....



16. Damage of medulla oblongata.

.....

17. The over use of stimulating substances.

.....

18. All human bones are fixed with each other.

.....

19. Sitting for long times in front of the computer.

.....

20. Knee joints become freely movable joints.

.....

## 9 Problems:

1. Look at the following figure, then answer:

1) Label the figure:

- Liquid ①: .....

- Substance ②: .....

2) The function of substance ② is:

.....

3) Mention three uses of carbon dioxide gas:

.....

.....

.....

4) Mention the properties of the evolved gas:

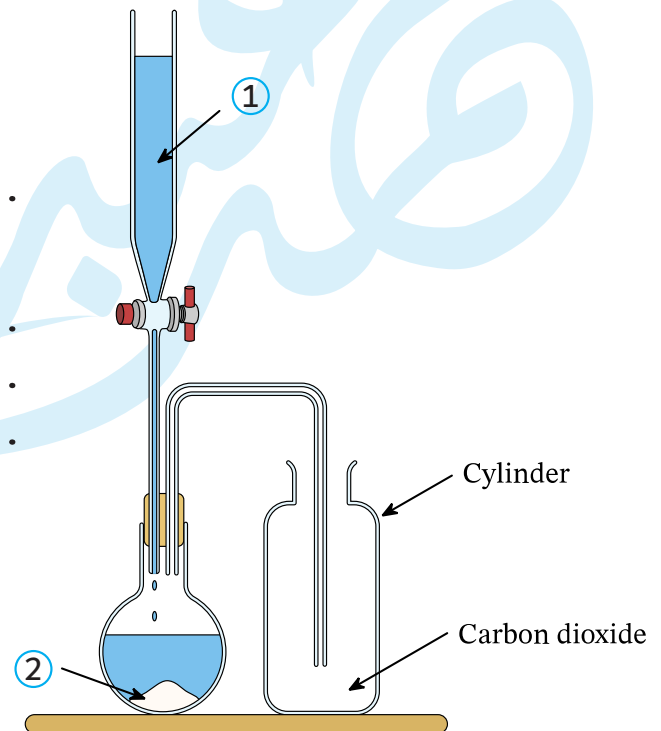
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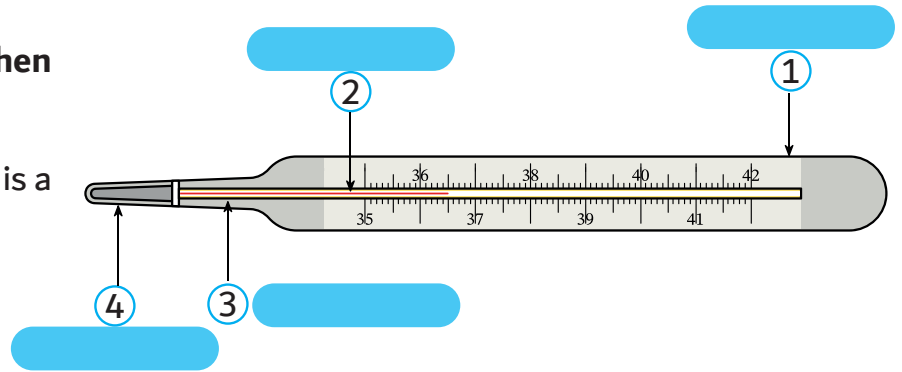


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أشطر كتكوت؟

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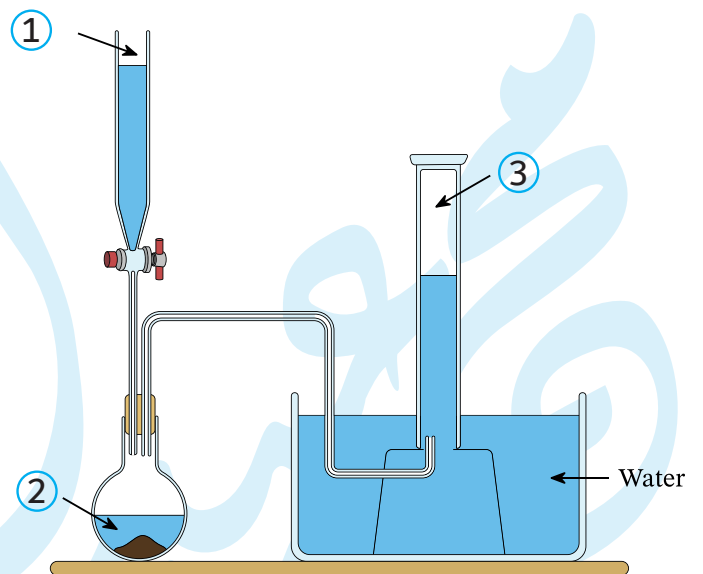
2. Look at the following figure, then answer:

- 1) The thermometer in the figure is a ..... thermometer.
- 2) Label the figure.



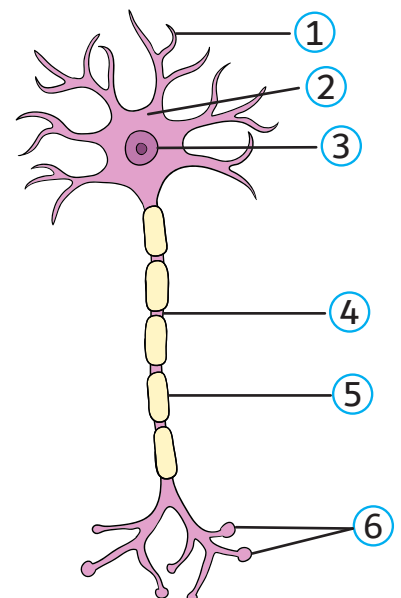
3. Look at the following figure, then answer:

- 1) The apparatus represents the preparation of ..... gas.
- 2) Label the figure:
  - Solution ①:
  - ②:                      - ③:
- 3) The function of substance ② is:



4. Label the following figure:

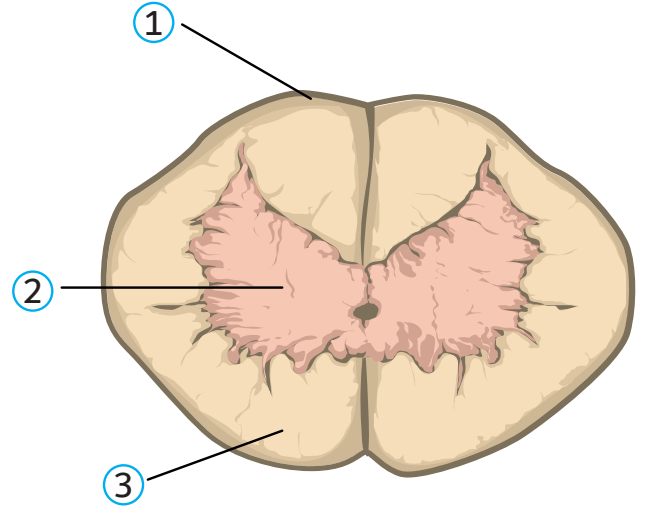
- ①
- ②
- ③
- ④
- ⑤
- ⑥



5. Look at the following figure, then answer:

- 1) This is the structure of .....
- 2) Write the names of the parts:

- ①
- ②
- ③



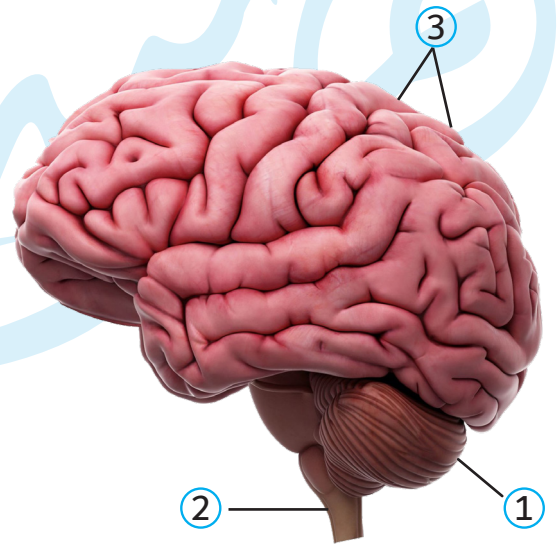
6. Look at the following figure, then answer:

- 1) What is the name of this device? .....
- 2) Mention the uses of this device. ....
- 3) What is the liquid which is used in making it? .....

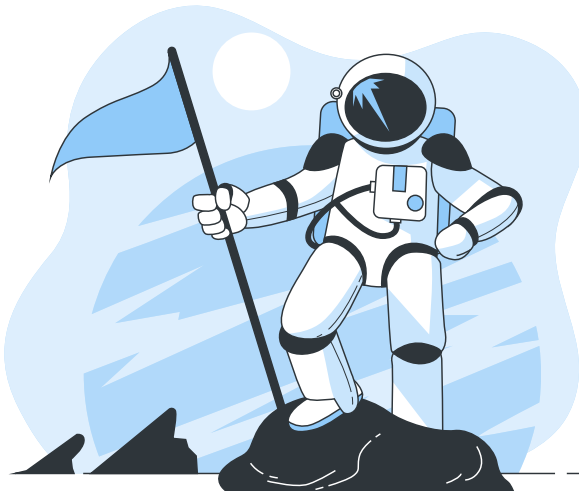


7. Label each part of the following figure:

- ①
- ②
- ③



انتهينا بفضل من  
الله وتوفيقه ...





# Final Revision

## \*(1) Choose the right answer:

**Mr. Ahmed Elbasha**

1. The device of measuring weight is .....  
a. sensitive scale.      b. spring scale.      c. digital scale.      d. double pan scale.
2. The best metal in conducting heat is .....  
a. aluminum      b. iron.      c. copper.      d. mercury.
3. The gas which turns limewater turbid is ..... gas.  
a. oxygen      b. nitrogen      c. carbon dioxide      d. ozone
4. The ribcage in the human body consists of ..... of ribs.  
a. 10 pairs      b. 11 pairs      c. 12 pairs      d. 13 pairs
5. Which of the following is from slightly movable joints .....  
a. thigh.      b. wrist.      c. ankle.      d. knee
6. The weight of the body on the Earth 's surface is 6 Newton, so its weight on the moon surface is .....  
a. 1 kg .      b. 1 Newton.      c. 6 kg.      d. 6 Newton.
7. The gas which is used with acetylene in welding metals is ..... gas.  
a. carbon dioxide      b. nitrogen      c. hydrogen      d. oxygen
8. Which of the following is from joints? .....  
a. Femur.      b. Shaft.      c. Pelvic.      d. Knee.
9. .... nearly equals the mass of one paper clip.  
a. Kilogram      b. Gram      c. Newton      d. Ton
10. Oxygen is produced from ..... process.  
a. photosynthesis      b. oxidation      c. burning      d. respiration
11. The cerebellum is responsible for .....  
a. the reflex action..      b. memory.      c. thinking      d. the body balance.
12. Nitrogen represents ..... of the Earth's atmosphere.  
a. 21 %      b. 78 %      c. 0.03 %
13. Heat insulators are used in making all of the following except .....  
a. handle of iron.      b. cooking pots.      c. woolen clothes.

14. The liquid used in the manufacture of the thermometer is .....  
a. hydrogen peroxide.    b. water.    c. mercury.    d. alcohol.
15. We can extinguish fire using ..... gas.  
a. oxygen    b. nitrogen    c. carbon dioxide
16. .... controls the reflex actions.  
a. Spinal cord    b. Cerebellum    c. Cerebrum
17. Which of the following is responsible for keeping the body balance ? .....  
a. Spinal cord.    b. Medulla oblongata.    c. Cerebellum.
18. .... gas is prepared by adding dilute hydrochloric acid to calcium carbonate.  
a. Carbon dioxide    b. Nitrogen    c. Oxygen    d. All the previous
19. A Newton is the weight of a ball its mass is .....  
a. 80 grams.    b. 8 kg.    c. 8 grams.    d. 100 grams.
20. A rapid combination between oxygen and an element producing .....  
a. heat.    b. light.    c. (a) and (b ).    d. no correct answer
21. Melting point of ice is ..... °C.  
a. 100    b. zero    c. 42    d. 37
22. The bone that connects the ribs from front is .....  
a. femur.    b. skull.    c. sternum.    d. humerus.
23. The mass of half liter of distilled water equals .....  
a. 100 gm.    b. 150 gm.    c. 500 gm.    d. 1000 gm.
24. A substance which is a good conductor of heat .....  
a. wool.    b. plastic.    c. iron.    d. wood.
25. .... are the joints that allow the movement in one direction  
a. Freely movable joints    b. Immovable joints    c. Slightly movable joints
26. Ahmed can sterilize the thermometer by using .....  
a. water.    b. benzene.    c. ethyl alcohol.
27. The main source of oxygen in air is ..... process.  
a. photosynthesis    b. respiration    c. oxidation
28. Photosynthesis process in the plant depends on the presence of .....  
a. nitrogen.    b. oxygen.    c. ozone.    d. carbon dioxide.
29. Humerus bone is one of the bones of .....  
a. lower limbs.    b. upper limbs.    c. backbone.    d. axial skeleton .

30..... is the gravitational force by which a body is attracted to the Earth.

- a. Weight                      b. Mass                      c. Volume                      d. Density

31.Cooking utensils are provided with handles of .....

- a. copper.                      b. plastic.                      c. iron.                      d. aluminium.

32.Every degree in the medical thermometer is divided into ..... parts.

- a. 3                      b. 5                      c. 6                      d. 10

33.Oxygen is ..... than air.

- a. heavier                      b. lighter                      c. colder                      d. hotter

34.A gas which turns limewater into turbid is ..... gas.

- a. oxygen                      b. nitrogen                      c. carbon dioxide                      d. ozone

35.The axon is covered with a fatty substance called .....

- a. gray matter.                      b. synapse.                      c. myelin sheath.                      d. dendrites

36.The carbon dioxide is used in the industry of .....

- a. steel.                      b. gun powder.                      c. fertilizers.                      d. soft drinks.

37.All the following are from the components of central nervous system except .....

- a. spinal nerve.                      b. two cerebral hemispheres.  
c. spinal cord.                      d. medulla oblongata.

38.Hydrogen peroxide is used in preparing ..... gas.

- a. oxygen                      b. carbon dioxide                      c. nitrogen                      d. hydrogen

39.The weight is measured by ..... scale.

- a. sensitive                      b. digital                      c. two-arm                      d. spring

40.The liquid used in the Celsius thermometer is .....

- a. hydrogen peroxide                      b. alcohol                      c. water                      d. mercury

41.Which of the following is faster in conducting heat? .....

- a. Glass                      b. Aluminum                      c. Copper                      d. Iron

42.One of the slightly movable joints is the ..... joint.

- a. thigh                      b. shoulder                      c. wrist                      d. knee

43..... is used to make the iron handle.

- a. Iron                      b. Copper                      c. Aluminum                      d. Plastic

44.Carbon dioxide is produced when diluted hydrochloric acid is added to .....

- a. calcium carbonate                      b. calcium oxide                      c. calcium hydroxide

45.The part of the nervous system which is responsible for reflex actions is called .....

- a. cerebrum                      b. cerebellum                      c. medulla oblongata                      d. spinal cord



46. From the properties of oxygen, it is ..... soluble in water.  
a. scarcely                      b. rapidly                      c. not
- 
47. The main idea of making a thermometer is changing the ..... of the liquid according to the changing of temperature.  
a. volume                      b. density                      c. mass                      d. weight
- 
48. Newton equals nearly the weight of a body whose mass is .....  
a. 10 g                      b. 100 g                      c. 1000 g                      d. 10000 g
- 
49. Myelin sheath surrounds the .....  
a. nerve cell axon                      b. cerebellum                      c. spinal cord
- 
50. Which of the following gases have great percentage in atmospheric air? .  
a. Oxygen                      b. Nitrogen                      c. Carbon dioxide
- 
51. Among the freely movable joints are ..... joints .  
a. knee                      b. thigh                      c. elbow                      d. skull
- 
52. Celsius is the measuring unit of .....  
a. weight                      b. temperature                      c. volume                      d. mass
- 
53. The thoracic (rib cage) in man consists of ..... pairs of ribs.  
a. 11                      b. 31                      c. 12                      d. 14
- 
54. Oxygen is present in the atmosphere in a gaseous state in the form of molecules whose structure is .....  
a. O<sub>3</sub>                      b. O                      c. O<sub>4</sub>                      d. O<sub>2</sub>
- 
55. One of the properties of carbon dioxide is being .....  
a. heavier than air                      b. lighter than air                      c. scarcely soluble in water
- 
56. Among the immovable joints is .....  
a. shoulder joint                      b. wrist joint                      c. elbow joint                      d. skull joints
- 
57. The part which is responsible for keeping human body balance is ..... .  
a. two cerebral hemispheres                      b. cerebellum  
c. medulla oblongata                      d. spinal cord
- 
58. Photosynthesis process in the plant depends on the presence of ..... gas.  
a. oxygen                      b. nitrogen                      c. ozone                      d. carbon dioxide
- 
59. Mercury remains liquid between two degrees .....  
a. (-39: 357)°C                      b. (39: -357)°C                      c. (Zero : 100)°C
- 
60. The tool which is used to measure the weight is .....  
a. the spring scale                      b. digital scale                      c. two-arm scale
- 
61. The planet on which the body's weight equals 6 times as its weight on the moon is ....  
a. Earth                      b. Mars                      c. Jupiter



62. The nerve cell body consists of .....  
a. nucleus                      b. cytoplasm and plasma membrane                      c. all the previous
- 
63. The weight of a body, whose mass is 10 kg on earth surface nearly equals .....  
a. 10 Newton                      b. 100 Newton                      c. 1000 Newton
- 
64. .... is surrounded with fatty layer.  
a. Axon of nerve cell                      b. cerebellum                      c. spinal cord
- 
65. Reflex action takes place in .....  
a. Spinal cord                      b. brain hemispheres                      c. medulla oblongata
- 
66. Joint is the location of ..... meet.  
a. Two bones                      b. muscle with bone                      c. two muscles
- 
67. Number of the brain nerves is ..... pair of nerves.  
a. 31                      b. 21                      c. 12
- 
68. The grey matter in the spinal cord has ..... shape.  
a. H                      b. F                      c. A
- 
69. The centers of thinking and memory lie in .....  
a. medulla oblongata.                      b. spinal cord.  
c. cerebellum.                      d. two cerebral hemispheres.
- 
70. Reflex action takes place through the .....  
a. medulla oblongata.                      b. spinal cord.  
c. cerebellum.                      d. cerebrum.

**\* (2) Write the scientific term :**

- 1) The amount of matter in an object. ....
- 2) A bony box that contains cavities for eyes, ears and nose. ....
- 3) A gas that is the most important part in protein. ....
- 4) A flame is used in cutting and welding metals. ....
- 5) Materials that don't let heat to pass through. ....
- 6) Automatic response of the body to different stimuli. ....
- 7) The part of the brain that is responsible for regulating the heartbeats. ....
- 8) A chemical substance that increases the speed of the reaction without changing in its quantity and structure. ....
- 9) A device used to measure the temperature of liquids. ....
- 10) The materials that let heat flow through. ....
- 11) A chemical substance that remains without any change in its quantity and structure during the chemical reaction ....
- 12) The main control center in the human body. ....
- 13) The gas protects the Earth from harmful radiation. ....
- 14) A gas that composes the protein substance that builds up our bodies. ....
- 15) The basic structure of the nervous system. ....
- 16) The liquid that is used in sterilizing the medical thermometer. ....
- 17) The force with which a body is attracted to the Earth. ....
- 18) It is the degree helps us to express the hotness or coldness of an object. ....
- 19) The gas that raises the temperature of the Earth when its percentage increases in air. ....
- 20) An organ responsible for reflex action. ....
- 21) A gas molecule consists of three atoms of oxygen. ....

- 22) Automatic response of the body to different stimuli such as light and heat. ....
- 23) Materials that let heat flow through. ....
- 24) A gas is used in making soft drinks. ....
- 25) A tool is used to measure body weight. ....
- 26) A system responsible for integration and coordination between systems of the human body. ....
- 27) The location of bones meet and allow moving. ....
- 28) The force with which a body is attracted to the Earth. ....
- 29) A rapid union between oxygen and an element producing heat and light. ....
- 30) The building unit of the nervous system. ....
- 31) The gas that exists in the atmosphere and protects the Earth from harmful radiations coming from the Sun. ....
- 32) They are 12 pairs of nervous emerging from the brain. ....
- 33) A gas used to put off fires. ....
- 34) An organ responsible for the reflex actions of the body. ....
- 35) A gas is used by legumes in formation of their proteins. ....
- 36) The measuring unit of mass which equals the mass of one liter of distilled water at the normal temperature. ....
- 37) Materials that do not let heat flow through. ....
- 38) A gas that turns clear limewater into milky. ....
- 39) The used liquid in thermometers. ....
- 40) The joint which allows the movement in all directions. ....
- 41) The gas that doesn't burn but it helps in burning. ....
- 42) Mixture of gases surrounding the Earth. ....
- 43) Degree of hotness or coldness of an object. ....

- 44) Gas its percentage in the atmospheric envelope represents 78 %. .....
- 
- 45) Amount of matter in an object. ....
- 
- 46) Materials that allow heat to flow through. ....
- 
- 47) The measurement unit of weight which is almost equal to weight of a body its mass is 100 grams. ....
- 
- 48) The liquid which is used in manufacturing of thermometers. ....
- 
- 49) The fastest metal in conducting heat. ....
- 
- 50) The thermometer which contains constriction. ....
- 
- 51) The rapid union between  $O_2$  and element which produces heat and light. ....
- 
- 52) The layer that consists of 3 Oxygen atoms ( $O_3$ ) and protects the Earth from harmful radiation. ....
- 
- 53) The gas that represents 0.03% of atmospheric volume. ....
- 
- 54) A system that consists of the brain, the spinal cord and nerves. ....
- 
- 55) It is the outer surface of cerebral hemispheres that has a grey color. ....
- 
- 56) They are 12 pairs of nerves which emerge from the brain. ....
- 
- 57) They are 31 pairs of nerves emerge from the spinal cord. ....
- 
- 58) It consists of the skull, Backbone and rib cage. ....
- 
- 59) It is a part of the axial skeleton that consists of 33 vertebrae with cartilages between them. ....
- 
- 60) The joints that allow the movement in one direction. ....
- 
- 61) A device that is used to measure the weight of an object. ....
- 
- 62) A device is used to measure the temperature. ....
- 
- 63) A gas in which is prepared by using hydrogen peroxide. ....
- 
- 64) It consists of two hydrogen atoms and one Oxygen atom. ....
- 
- 65) A gas that is used in making soft drinks and bread. ....
-

- 66) They are branches extending from the neuron's body. ....
- 
- 67) They are nerve endings connect to muscles or form a synapse with other neurons. ....
- 
- 68) It consists of cerebrum, cerebellum and medulla oblongata. ....
- 
- 69) Consists of a grey matter in the form of H letter surrounded by the white matter. ....
- 
- 70) It is the nerves which emerge from the central nervous system. ....
- 
- 71) A device is used to measure the temperature of human body. ....
- 
- 72) A device is used to measure the temperature of liquids. ....
- 
- 73) A gas molecule's consist of three atoms of oxygen. ....
- 
- 74) The substance that remains without a change in its quantity and properties. ....
- 
- 75) The slow union between  $O_2$  and element in the presence of moisture. ....
- 
- 76) A gas that is used for diving and climbing. ....
- 
- 77) A gas that is produced during burning and respiration of living organisms. ....
- 
- 78) The chemical substance that is used to detect (test) the presence of  $CO_2$  gas. ....
- 
- 79) The gas that doesn't burn and doesn't help in burning and is used in making fire extinguishers. ....
- 
- 80) It is a cylindrical axis covered with a fatty layer and is called myelin sheath. ....
- 
- 81) The main control center in your body that directs and coordinates all the processes, ideas, behaviors and emotions. ....
- 
- 82) It contains the centers of thinking and memory and controlling the voluntary movement of the body. ....
- 
- 83) It lies at the back area of the brain below two hemispheres. ....
- 
- 84) It is maintaining the balance of the body during movement. ....
-

**\*(3) Complete the following :**

1. The measuring unit of weight is ..... , while the measuring unit of mass is .....
2. The scale of medical thermometer starts from .....°C and ends at ..... °C.
3. The force by which the body is attracted to the Earth is called .....
4. Handles of cooking pots are made of .....
5. We can use ..... thermometer to measure the temperature of different liquids,  
and ..... thermometer is used in measuring the temperature of the human body.
6. Oxygen gas is prepared by the decomposition of ..... in the presence of  
..... as a catalyst.
7. The neuron consists of two main parts ..... and .....
8. Percentage of carbon dioxide gas in the atmospheric air is ..... and has the symbol .....
9. The knee joint is considered from ..... joints, while the wrist joint is considered  
from ..... joints.
- 10..... conducts heat faster than aluminum.
- 11.The scale of Celsius thermometer starts from ..... °C and ends at ..... °C.
- 12.In air oxygen gas exists by ..... % and nitrogen gas exists by percentage ..... % .
- 13.The measurement unit of mass is ..... , whereas the measurement unit of weight is .....
- 14.There is a constriction in the ..... thermometer.
- 15.The ..... thermometer is used to measure the water temperature.
- 16.Oxygen gas is prepared in laboratory from ..... in presence of .....
- 17.Oxygen is produced from ..... process and carbon dioxide is produced  
from ..... process.
18. As the mass of the planet on which the body exists increases, the ..... of  
the planet increases and ..... of the body increases.



19. Carbon dioxide is prepared by adding ..... to the powder of .....
20. The medical thermometer is graduated from ..... to .....
21. The ..... is the measurement unit of mass , whereas the ..... is the measurement unit of weight.
22. .... controls the reflex action (reflexes).
23. The measurement unit of mass is ..... or ..... , whereas the measurement unit of weight is .....
24. From the substances which are bad conductors of heat ..... and .....
25. The mass is measured by ..... scale and the weight is measured by ..... scale.
26. The number of the cranial nerves is ..... and the number of the spinal nerves is .....
27. Mass is a constant value and it is not affected by changing .....
28. The axon of nerve cell is surrounded by .....
29. The Celsius thermometer is used in measuring the temperature of ..... , while the medical thermometer is used in measuring the temperature of .....
30. Central nervous system consists of ..... and .....
31. Limewater turns milky in presence of ..... due to the formation of ..... which is insoluble in water.
32. The ribcage protects ..... and .....
33. Nervous system consists of two main systems which are ..... and .....
34. Handles of cooking utensils are made up of ..... and .....
35. Weight of an object can be measured by using the .....
36. Oxygen combines with acetylene gas to produce .....
37. Exhaled air contains ..... gas which turbid .....
38. Heat is a form of .....



39. Divers use ..... cylinder during diving under water.
40. The centers of thinking and memory lie in .....
41. The scale of medical thermometer starts from ..... °C and ends at ..... °C
42. The main idea of making a thermometer is the change in ..... of the Liquid by changing .....
43. During photosynthesis process in green plants ..... gas is produced, while burning of organic materials produces ..... gas .
44. Materials are classified according to heat conductivity into ..... and .....
45. Mercury remains liquid between two degrees which are .....°C and ..... °C
46. The number of cranial nerves is ..... pairs, while the number of spinal nerves ..... pairs.
47. The rapid union (reaction) between oxygen and other elements producing heat and light, is called ..... , but if this union (reaction) is slow and accompanied by the presence of moisture, it is called .....
48. The number of vertebrae of vertebral column in human body is ..... and the number of spinal nerves is ..... pairs.
49. The water is freeze at ..... °C and boiled at ..... °C
50. Water consists of the union of one atom of ..... with two ..... atoms.
51. Oxygen is produced from ..... process and CO<sub>2</sub> is produced from ..... process
52. Heat transfers from the ..... temperature object to the ..... temperature object.
53. The force of Earth's attraction to a body is called ..... and is measured in a unit that is called .....
54. The human axial skeleton consists of ..... , rib cage and .....
55. .... gas turns limewater turbid because of the formation of ..... which doesn't dissolve in water.

56. The oxygen gas is produced from ..... during ..... process.
57. Heat is a form of ..... that transfers from the ..... temperature object to the low temperature object.
58. The peripheral nervous system consists of ..... nerves and ..... nerves.
59. Mass does not change with the change of .....
60. The brain consists of cerebrum, ..... and .....
61. The backbone consists of ..... vertebrae.

✱(4) **Correct the underlined words:**

1	<u>Ozone</u> is composed of two oxygen atoms.	( ..... )
2	The liquid used in the medical thermometer is <u>alcohol</u> .	( ..... )
3	The main idea to make a thermometer is changing the <u>mass</u> of liquid according to the temperature.	( ..... )
4	Ozone molecule consists of <u>four</u> atoms.	( ..... )
5	<u>Cerebellum</u> connects the brain with spinal cord.	( ..... )
6	<u>Nitrogen</u> gas combines with elements forming oxides (oxidation).	( ..... )
7	The <u>white</u> matter in the spinal cord has the shape of letter "H".	( ..... )
8	<u>Iron</u> is the fastest element in conducting heat.	( ..... )
9	Nitrogen represents <u>21 %</u> of the volume of the atmosphere.	( ..... )
10	<u>Carbon dioxide</u> gas is essential to form rust.	( ..... )
11	The nodular bacteria fix <u>oxygen</u> of air in the roots of leguminous plants.	( ..... )
12	<u>Copper</u> from substances which the heat cannot pass through it.	( ..... )
13	<u>Nitrogen</u> gas is used in putting off fires.	( ..... )
14	<u>Mass</u> is the force of the Earth's gravity to an object.	( ..... )
15	<u>Newton</u> is the amount of matter in an object.	( ..... )
16	<u>Light</u> is a form of energy that transfers from the higher temperature object to the lower temperature object.	( ..... )
17	The <u>cerebrum</u> controls the involuntary movement.	( ..... )
18	The measuring devices of temperature are <u>scales</u> .	( ..... )

19	A <b>black</b> precipitate is formed when CO <sub>2</sub> gas is passed in lime water.	( ..... )
20	The degree of hotness or coldness is <b>heat</b> .	( ..... )
21	The mass of a piece of stone on the earth's surface is <b>smaller than</b> its mass on the moon's surface.	( ..... )
22	The normal temperature of the healthy person is <b>35°C</b> .	( ..... )
23	Air is a <b>good</b> heat of conductor.	( ..... )
24	<b>Kilogram</b> equals the mass of one paper clip.	( ..... )
25	The melting point of ice is <b>100°C</b>	( ..... )
26	The molecule of ozone gas consists of <b>four</b> oxygen atoms.	( ..... )
27	<b>Mass</b> is the gravitational force by which a body is attracted to the earth.	( ..... )
28	The <b>Celsius</b> thermometer is used for measuring the temperature of human being.	( ..... )
29	Each degree in the medical thermometer is divided into <b>3</b> parts.	( ..... )
30	The scale of medical thermometer starts from <b>0°C to 100°C</b> .	( ..... )
31	Materials that conduct heat are called heat <b>insulators</b> .	( ..... )
32	Handles of cooking pots are made of <b>copper</b> .	( ..... )
33	The medical thermometer has a <b>capillary tube</b> to prevent mercury from going back to the mercury bulb.	( ..... )
34	Aluminum is a <b>bad</b> conductor of heat.	( ..... )

**★(5) Give reason for:**

1. Carbon dioxide gas is used in extinguishing fires.

.....

2. Ozone gas is very important in nature.

.....

3. There is a constriction in the medical thermometer.

.....

4. Clear limewater becomes turbid when carbon dioxide passes.

.....

5. Mercury is used in thermometers.

.....

.....

6. Oxygen gas is collected by downward displacement of water.

.....

7. Using oxy-acetylene flame in cutting and welding metals.

.....

8. The handles of cooking pots are made of plastic

.....

9. The brain is located inside the skull.

.....

10. Yeast is added to the dough on making bread.

.....

11. Aluminum is used in manufacturing of cooking pans.

.....

12. Air is the main source of nitrogen.

.....

13. The cerebrum is a very important part of the brain.

.....

14. Leaving spaces between the railway bars.

.....

15. Cooking pots are made of aluminum.

16. Damage of the medulla oblongata causes death.

17. Bridges which are made of iron are painted.

18. We must shake the medical thermometer well before using.

19. Mountain climbers carry Oxygen Cylinders.

20. CO<sub>2</sub> gas is used in extinguishing fires.

21. The increase of CO<sub>2</sub> gas amount is harmful.

22. Clear lime water is used to detect the presence of CO<sub>2</sub> gas.

23. The environment suffers from the increase of CO<sub>2</sub> gas.

24. Manganese dioxide still without change in quantity and properties during preparation of oxygen.

25. Mercury gives a wide range to measure the temperature.

26. The mass of a piece of cleansing wire increases after burning.

27. Using oxy- acetylene flame in cutting metals.

28. The brain is located inside the skull & the spinal cord extends through the inside of back bone.

29. Backbone consists of 33 vertebrae with cartilages between them.

30. The presence of spinal cord inside the backbone.

31. The upper limbs are very important.

32. Lower limbs are very important.

33. Skull joints are from immovable joints.

34. Knee joints are from slightly (limited) movable joints.

35. Wrist & thigh joints are from freely (wide) movable joints.



**\*(6) What happen if:**

1. Increasing the percentage of carbon dioxide gas in the atmosphere.

.....

2. The cerebellum is shocked hardly.

.....

3. Damage of medulla oblongata.

.....

4. The distance between a person in a balloon and the center of the Earth increases.

.....

5. Sitting for long times in front of the computer.

.....

6. You shake the medical thermometer before using it.

.....

7. Knee joints become freely movable joints.

.....

8. The over use of stimulating substances.

.....

9. A body moves away from the center of the Earth.

.....

10. There is no oxygen in the atmospheric air.

.....

11. An iron nail wetted by water is exposed several days to humid air.

.....

12. Ozone layer is decayed.

.....

13. There is no constriction above mercury bulb in clinical thermometer.

.....

14. Dilute hydrochloric acid is dropped over calcium carbonate.

.....

15. Nodular bacteria are removed from plants roots.

.....

16. An iron nail wetted by water is exposed for many days to humid air.

.....

17. Hydrogen peroxide is dropped over manganese dioxide

.....

18. Exhaled air passed through clear limewater.

.....

19. There are no spaces between railway bars.

.....

20. All human bones are fixed with each other.

.....

21. Adding yeast to dough on making bread.

.....

22. The mass of cleansing wire after burning.

.....

23. The percentage of carbon dioxide gas increases in the atmospheric air.

.....

**\*(7) Put ( √ ) or ( X ) :**

- |  |        |
|--|--------|
| 1. The cerebellum is responsible for maintaining the body balance during     | (    ) |
| 2. The mass of the body changes as its location changes                      | (    ) |
| 3. Woolen clothes are good conductors of heat                                | (    ) |
| 4. In the Celsius thermometer there is a constriction in the capillary tube. | (    ) |
| 5. Shoulder joint is an immovable joint.                                     | (    ) |
| 6. Copper is a good conductor of heat  | (    ) |
| 7. Ozone gas is composed of four atoms of oxygen.                            | (    ) |
| 8. The scale of medical thermometer starts from 35°C to 42°C                 | (    ) |
| 9. All materials are good conductors of heat.                                | (    ) |
| 10. Magnesium combines with oxygen gas forming a black substance             | (    ) |
| 11. The spring scale is used for measuring weight.                           | (    ) |
| 12. Celsius thermometer is used to measure the temperature of human being.   | (    ) |
| 13. The spinal cord is responsible for the reflexes.                         | (    ) |
| 14. Heat transfers from the cold object to hot object                        | (    ) |
| 15. Oxygen gas occupies 78 % of the atmospheric air                          | (    ) |
| 16. Aluminium is a bad conductor of heat.                                    | (    ) |
| 17. Manganese dioxide is used as a catalyst during preparation of oxygen.    | (    ) |
| 18. Iron is the best heat conductor.   | (    ) |
| 19. Oxygen gas occupies 0.03 % of the atmospheric air components.            | (    ) |
| 20. Cartilages prevent the friction between the bones                        | (    ) |
| 21. The liquids expand by heating and contract by cooling.                   | (    ) |
| 22. As the mass of the planet increases, its gravitational force decreases   | (    ) |
| 23. Nitrogen gas represents 0.03 % of the air volume.                        | (    ) |
| 24. Copper conducts heat faster than aluminium.                              | (    ) |
| 25. The Earth is surrounded by a mixture of gases.                           | (    ) |
| 26. Mass differs according to the planet where the object exists             | (    ) |
| 27. The cerebellum contains centers of thinking and memory.                  | (    ) |

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28. The Celsius thermometer is used in measuring the human body temperature.	(     )	
29. The Liquid used in the medical thermometer is alcohol.	(     )	
30. The shoulder joint is a freely moveable joint.	(     )	
31. Cooking pots are made of plastic.	(     )	
32. Heat transfers from a cold object to a hot object.	(     )	
33. The weight is the force with which a body is attracted to the earth.	(     )	
34. Ozone gas consists of three oxygen atoms.	(     )	
35. One kilogram equals 1000 grams which is equal to one liter of distilled water.	(     )	
36. Humerus bone and forearm are from the parts of the lower limbs.	(     )	
37. Oxyacetylene flame is used in cutting and welding metals.	(     )	
38. The mass of materials decreases after combination with oxygen.	(     )	
39. The cerebellum is responsible for keeping the body balance during movement.	(     )	
40. The cooking pots and kettles are made up of plastic.	(     )	
41. Mass is the force of earth's gravity to a body.	(     )	
42. Bones of the lower limbs are connected to the shoulder bones.	(     )	
43. The digital balance is used in measuring weight.	(     )	
44. Copper is considered a bad conductor of heat.	(     )	
45. The Celsius thermometer is used to measure the human temperature.	(     )	
46. The spinal cord is responsible for reflex actions in human body.	(     )	
47. The knee joint is an immovable joint.	(     )	
48. Aluminum conducts heat faster than copper.	(     )	
49. Hand wrist is one of the freely movable joints.	(     )	
50. The weight is constant and does not change with the change of place.	(     )	
51. Ozone gas consists of two oxygen atoms and is symbolized by O <sub>3</sub>	(     )	

**\* (8) What is the function (use) of ... ?**

1. Celsius thermometer.

.....

2. The ribcage.

.....

3. Oxy-acetylene flame.

.....

4. Cerebellum.

.....

5. Skull.

.....

6. Medulla oblongata.

.....

7. Balance scale.

.....

8. Carbon dioxide gas

.....

9. Heat insulators.

.....

## \*(9) Problems :

1

An object whose mass on the Earth equals 12 kg. Calculate:

1. Its weight on the Earth.

.....

.....

.....

2. Its weight on the moon.

.....

.....

.....

2

If the mass of a body on the Earth is 18 kg. Calculate :

1. Its mass on the moon.

2. Its weight on the Earth.

3. Its weight on the moon

.....

.....

.....

.....

.....

.....

3

(A)	(B)
1. The backbone	a. they allow movement in one direction only.
2. Ozone gas	b. they allow movement in all directions.
3. Oxygen gas	c. consists of 33 vertebrae.
4. Nitrogen gas	d. hydrogen peroxide is used in its preparation.
5. Slightly movable joints	e. protects the brain.
6. Freely movable joints	f. protects the Earth from harmful radiation.
	g. it represents 78 % of the volume of the atmospheric air.

1. ....

2. ....

3. ....

4. ....

5. ....

6. ....

4

Look at the following figure, then answer :

1. Write what represents each label :

- Liquid ① : .....

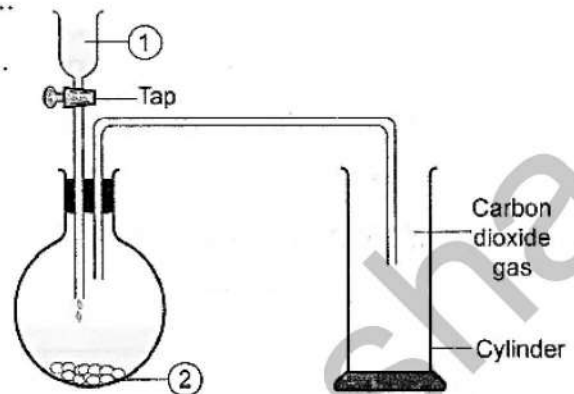
- Substance ② : .....

2. Mention three uses of carbon dioxide gas :

.....  
 .....  
 .....

3. Carbon dioxide is collected by upward displacement of air. Why ?

.....



5

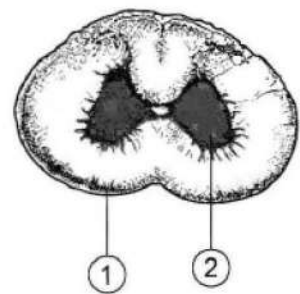
Look at figure, then answer :

- This is structure of .....

- Write the names of parts :

① .....

② .....



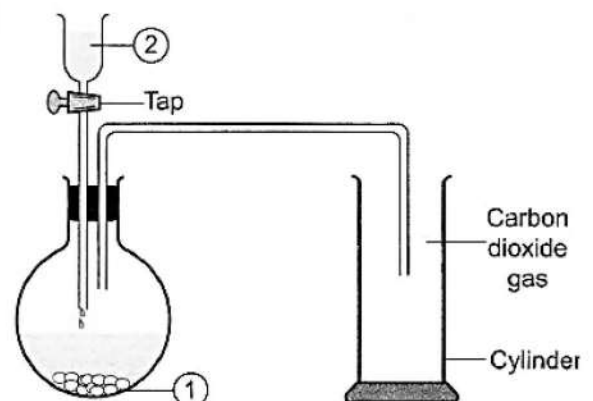
6

Look at the following figure , then answer :

1. Substance number ① is .....

2. Liquid number ② is .....

3. From the properties of the evolved gas is .....





7

join from column (A), what is suitable from column (B) :

(A)	(B)
1. Backbone	a. allow movement in all directions.
2. Freely movable joints	b. consists of 33 vertebrae.
3. Slightly movable joints	c. consists of 12 pairs of ribs.
4. Ribcage	d. allow movement in one direction only.
	e. protects the brain.

1. .... 2. .... 3. .... 4. ....

8

Look at the opposite figure then answer the following questions :

1. Mention the name of the gas which is prepared.

.....

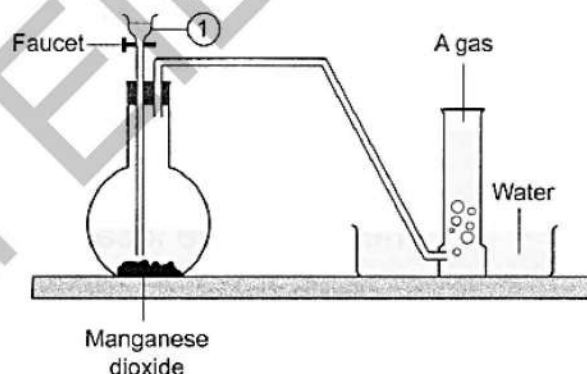
2. This gas is collected by downward displacement of water. Why ?

.....

3. Substance no. ① is :

.....

4. The function of manganese dioxide is .....



9

Choose from column (B), what suits it in column (A) :

(A)	(B)
1. Joints	a. prevent the friction between vertebrae.
2. Neuron	b. is responsible for regulating the involuntary processes.
3. Cerebellum	c. is the building unit of nervous system.
4. Cartilages	d. the location where bones meet in the body.
5. Medulla oblongata	e. is rapid combination between element and oxygen.
6. Cerebrum	f. keeps the balance of human body during movement.
	g. is responsible for regulating the voluntary movements.

1. .... 2. .... 3. ....

4. .... 5. .... 6. ....

10

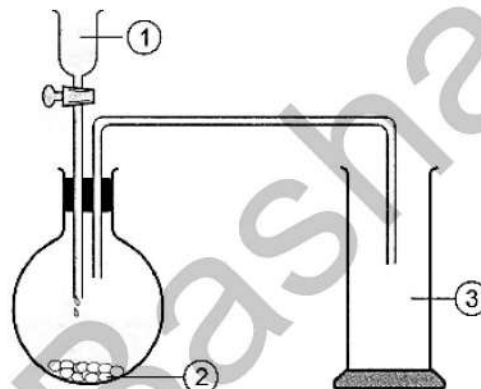
Compare between :

Point of comparison	Spinal nerves	Cranial nerves
Number	.....	.....

11

Look at the opposite figure, then answer :

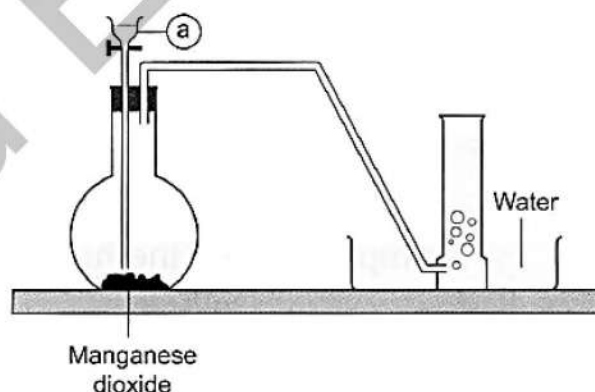
- This apparatus is used for the preparation of .....
- Write down the labels on the figure :
  - Liquid ① is .....
  - Substance ② is .....
  - Gas ③ is .....



12

Look at the opposite figure, then answer :

- This apparatus represents the preparation of ..... gas.
- Solution (a) is .....
- The produced gas is collected by downward displacement of water because it .....



13

Join from column (A), what is suitable from column (B) :

(A)	(B)
1. Alcohol	a. protects the Earth from harmful radiations.
2. Cranial nerves	b. is a liquid used in sterilizing of thermometers.
3. Plastic	c. are 12 pairs of nerves.
4. Ozone	d. are 31 pairs of nerves.
	e. is a bad conductor of heat.

1. ....

2. ....

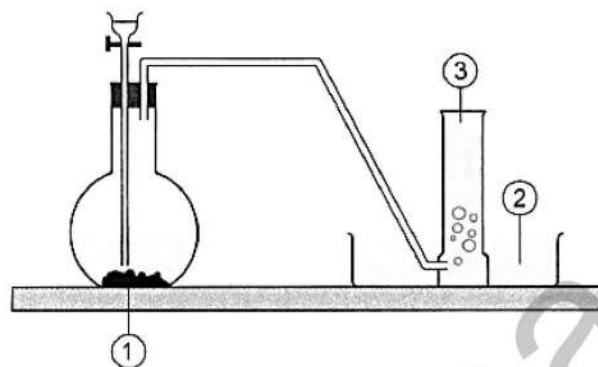
3. ....

4. ....

14

Look at the opposite figure,  
then complete the labels :

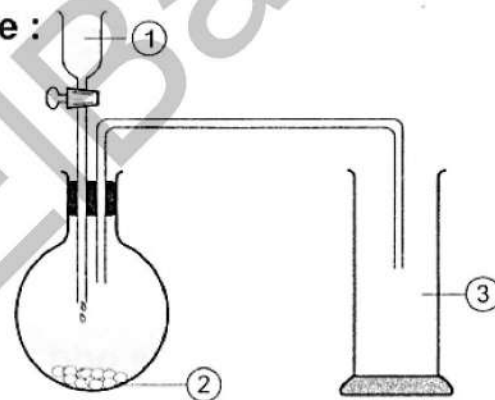
- ① .....  
② .....  
③ .....



15

Look at the opposite figure , then label the figure :

- ① .....  
② .....  
③ .....



16

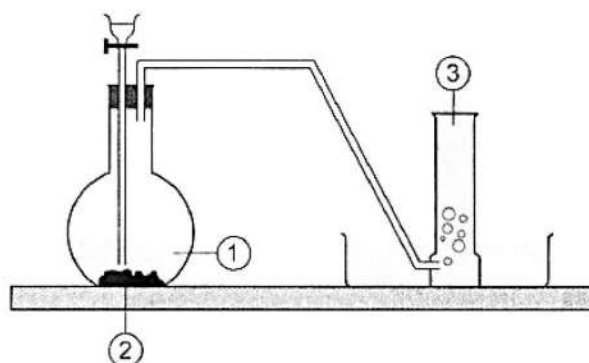
Look at the figure , then answer the questions :

1. Label the figure :

- ① .....  
② .....  
③ .....

2. What's the importance of number ② ?

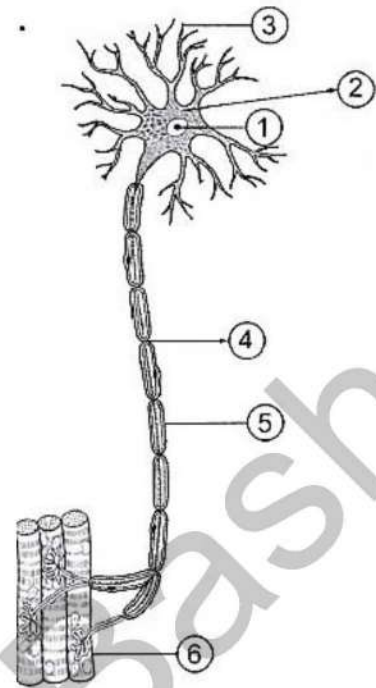
.....  
.....  
.....



17

Label the following figure:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

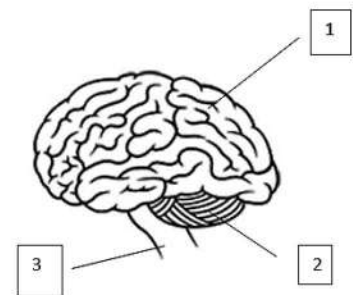


18

Look at the following figure, then answer:

- Write what each label represents on the figure:

- 1-
- 2-
- 3-



19

① Look at the opposite figure, and then answer :

1. This figure represents ..... thermometer.

2. Label the figure :

- ① .....
- ② .....
- ③ .....

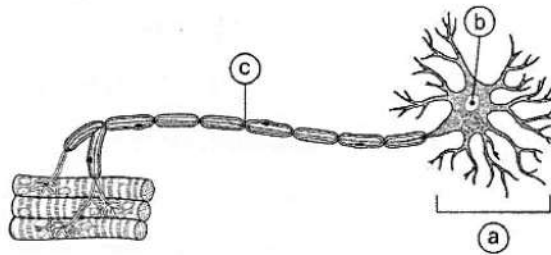


20

Look at the opposite figure, and then answer :

1. This is the ..... cell.
2. Write the labels :

- (a) .....
- (b) .....
- (c) .....



21

If the mass on Earth is 30 Kg, calculate :

- a- Its mass on moon .
- b- Its weight on Earth.
- c- Its weight on moon.

.....

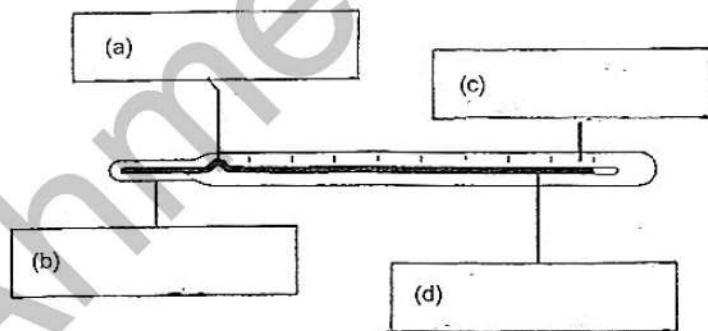
.....

.....

.....

22

(1) - label the different parts.

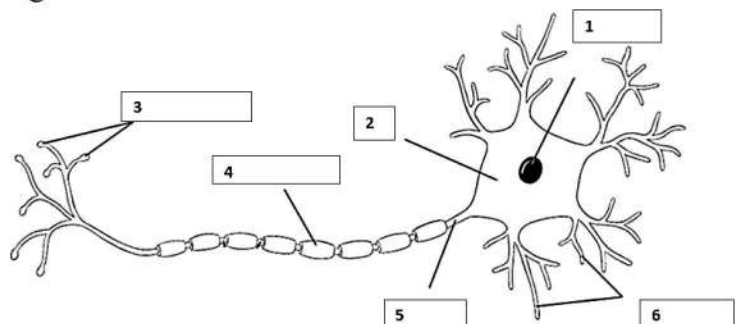


23

Look at the following figure, then answer:

- Write what each label represents on the figure:

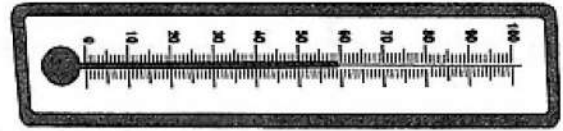
- 1-
- 2-
- 3-
- 4-
- 5-
- 6-



24

**Look at the opposite figure and then answer:**

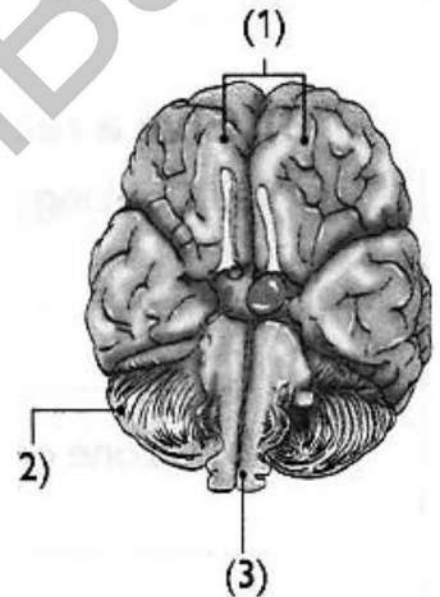
1. What is the name of this device?
2. Mention the uses of this device.
3. What is the liquid which is used in making it?



25

**Examine the following figure and complete:**

- 1 .....
- 2 .....
- 3 .....
- 4- The function of No. 2 is  
.....





## Model Answer

### \*(1) Choose the right answer:

1. B	13. B	29. B	45. D	60. A
2. C	14. C	30. A	46. A	61. A
3. C	15. C	31. B	47. A	62. C
4. C	16. A	32. D	48. B	63. B
5. D	17. C	33. A	49. A	64. A
6. B	18. A	34. C	50. B	65. A
7. D	19. D	35. C	51. B	66. A
8. D	20. C	36. D	52. B	67. C
9. B	21. B	37. A	53. C	68. A
10. A	22. C	38. A	54. D	69. D
11. D	23. C	39. D	55. A	70. B
12. B	24. C	40. D	56. D	
	25. C	41. C	57. B	
	26. C	42. D	58. D	
	27. A	43. D	59. A	
	28. D	44. A		

### \*(2) Write the scientific term:

1. Mass	23. Heat conductor	45. Mass	63. Oxygen
2. Skull	24. Carbon dioxide	46. Heat conductor	64. Water
3. Nitrogen	25. Spring scale	47. Newton	65. Carbon dioxide
4. Oxy-acetylene	26. Nervous system	48. Mercury	66. Dendrite
5. Heat insulator	27. Joint	49. Copper	67. Axon terminals
6. Reflex action	28. Newton	50. Medical thermometer	68. Brain
7. Medulla oblongata	29. Burning	51. Burning	69. Spinal cord
8. Catalyst	30. Neuron	52. Ozone layer	70. Peripheral nervous system
9. Celsius	31. Ozone	53. Carbon dioxide	71. Medical thermometer
Thermometer	32. Cranial nervous	54. Nervous system	72. Celsius thermometer
10. Heat conductor	33. Carbon dioxide	55. Cerebral cortex	73. Ozone
11. Catalyst	34. Spinal cord	56. Cranial nervous	74. Catalyst
12. Brain	35. Nitrogen	57. Spinal nervous	75. Oxidation
13. Ozone	36. Kilogram	58. Axial skeletal system	76. Oxygen
14. Nitrogen	37. Heat insulator	59. Backbone	77. Carbon dioxide
15. Neuron	38. Carbon dioxide	60. Limited movable joint	78. Carbon dioxide
16. Ethyl alcohol	39. Mercury	61. Spring scale	79. Carbon dioxide
17. Newton	40. Freely movable joint	62. Thermometer	80. Axon
18. Temperature	41. Oxygen		81. Brain
19. Carbon dioxide	42. Atmosphere		82. Cerebrum
20. Spinal cord	43. Temperature		83. Cerebellum
21. Ozone	44. Nitrogen		84. Cerebellum
22. Reflex action			



### \*(3) Complete the following:

- |   |  |  |
|---|--|--|
| 1. Newton – Kg                            | 21. Kg – Newton                        | 42. Volume – temperature               |
| 2. 35 – 42                                | 22. Spinal cord                        | 43. Oxygen – carbon dioxide            |
| 3. Weight                                 | 23. Kg or gm – Newton                  | 44. Conductor – insulator              |
| 4. Plastic                                | 24. Wood – plastic                     | 45. (-39 and 357)                      |
| 5. Celsius – medical                      | 25. Balance – spring                   | 46. 12 - 31                            |
| 6. Hydrogen peroxide – manganese dioxide  | 26. 12 pairs – 31 pairs                | 47. Burning – oxidation                |
| 7. Cell body - axon                       | 27. Place                              | 48. 33 - 31                            |
| 8. 0.03 % - CO <sub>2</sub>               | 28. Myelin sheath                      | 49. Zero – 100                         |
| 9. Limited movable – freely movable       | 29. Liquids - Human body               | 50. Oxygen – hydrogen                  |
| 10. Copper                                | 30. Brain – spinal cord                | 51. Photosynthesis – combustion        |
| 11. 0 – 100                               | 31. Carbon dioxide – calcium carbonate | 52. Higher – lower                     |
| 12. 21% - 78 %                            | 32. Heart – lung                       | 53. Weight – newton                    |
| 13. Kg – Newton                           | 33. Central – peripheral               | 54. Skull – back bone                  |
| 14. Medical                               | 34. Wood – plastic                     | 55. Carbon dioxide – calcium carbonate |
| 15. Celsius                               | 35. Spring scale                       | 56. Green plants - Photosynthesis      |
| 16. Hydrogen peroxide – manganese dioxide | 36. Oxy-acetylene                      | 57. Energy – higher                    |
| 17. Photosynthesis – combustion           | 37. Carbon dioxide - lime water        | 58. Cranial – spinal                   |
| 18. Gravitational force – weight          | 38. Energy                             | 59. Place                              |
| 19. Hydrochloric acid – calcium carbonate | 39. Oxygen                             | 60. Cerebrum – medulla oblongata       |
| 20. 35 – 42                               | 40. Cerebrum                           | 61. 33                                 |
|   | 41. 35 – 42                            |  |

### \*(4) Correct the underlined words :

- |                      |                       |                  |
|----------------------|-----------------------|------------------|
| 1. Oxygen            | 15. Mass              | 32. Wood         |
| 2. Mercury           | 16. Heat              | 33. Constriction |
| 3. Volume            | 17. Medulla oblongata | 34. Good         |
| 4. Three             | 18. Thermometer       |                  |
| 5. Medulla oblongata | 19. White             |                  |
| 6. Oxygen            | 20. Temperature       |                  |
| 7. Gray              | 21. Equal             |                  |
| 8. Copper            | 22. 37                |                  |
| 9. 78 %              | 23. Bad               |                  |
| 10. Oxidation        | 24. Gram              |                  |
| 11. Nitrogen         | 25. 0                 |                  |
| 12. Wood             | 26. Three             |                  |
| 13. Carbon dioxide   | 27. Weight            |                  |
| 14. Weight           | 28. Medical           |                  |
|                      | 29. 10                |                  |
|                      | 30. 35 to 42          |                  |
|                      | 31. Conductor         |                  |

**\*(5) Give reason for :**

1. Because it doesn't burn and doesn't help in burning
2. Because it protects the earth from harmful radiations.
3. To prevent mercury from going back to the bulb quickly
4. Because exhaled air contain  $\text{CO}_2$  gas
5. Because:
  - It is a liquid metal that can be seen easily through the capillary tube.
  - It is a good conductor of heat.
  - It expands regularly to give an accurate measurement.
  - It doesn't stick to the walls of the capillary tube.
6. Because oxygen is Scarcely dissolve in water.
7. Because its temperature reaches  $3500^\circ\text{C}$  which is enough to melt metals.
8. Because it is bad conductors of heat.
9. To protect it
10. Because yeast produces  $\text{CO}_2$  gas and make bread bubbled and tasty
11. Because it is good conductors of heat.
12. Because the air contains 78 % of  $\text{N}_2$  gas from its volume.
13. Because It controls the voluntary movements of the body
14. To avoid train accidents
15. Because it is good conductors of heat
16. Because it is responsible for regulating the involuntary processes of the body
17. To prevent them from iron rust.
18. To make the mercury go back to the bulb
19. Because oxygen is heavier than air
20. Because  $\text{CO}_2$  gas doesn't burn and doesn't help in burning.
21. Because it leads to raising the earth's temperature (global warming) and suffocation of living organisms.
22. Because exhaled air contain  $\text{CO}_2$  gas and make lime water milky
23. Due to the removal of forests.
24. Because it works as a catalyst
25. Because it remains liquid between  $(-39 \text{ to } 357)$  degree
26. Because oxygen combines with iron forming an iron oxide.
27. Because its temperature reaches  $3500^\circ\text{C}$  which is enough to melt metals.
28. To protect it
29. To prevent friction of vertebrae during movement.
30. To protect it
31. Because they allow eating, drinking, writing and holding things
32. Because they allow walking, running, standing and sitting
33. Because they do not allow any movement
34. Because it allows movement in one direction only
35. Because it allows movement in all directions

### \*(6) What happen if :

1. The temperature of earth will increase
2. The body will lose its balance
3. The involuntary processes such as heart beats will stop causing death
4. The weight of object will decrease
5. It will affect the nervous system
6. The mercury will return back to the mercury bulb
7. It can move in all directions
8. This affects the sleeping periods and heart beats
9. The weight of object will decrease
10. We can't make respiration process
11. It will rust
12. The earth will affected by harmful radiation
13. The mercury will return back to the mercury bulb very fast
14. CO<sub>2</sub> gas is produced
15. The plant can't make protein
16. It will rust
17. Oxygen gas is produced
18. The cleat lime water will be turbid
19. It will make train accident
20. We can't move
21. It will make bread bubbled and tasty
22. It's mass will increase
23. The temperature of the earth will increase

### \*(7) Put ( √ ) or ( X ) :

- |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|
| 1. ( √ )  | 11. ( √ ) | 21. ( √ ) | 31. ( X ) | 41. ( X ) |
| 2. ( X )  | 12. ( X ) | 22. ( X ) | 32. ( X ) | 42. ( X ) |
| 3. ( X )  | 13. ( √ ) | 23. ( X ) | 33. ( √ ) | 43. ( X ) |
| 4. ( X )  | 14. ( X ) | 24. ( √ ) | 34. ( √ ) | 44. ( X ) |
| 5. ( X )  | 15. ( X ) | 25. ( √ ) | 35. ( √ ) | 45. ( X ) |
| 6. ( √ )  | 16. ( X ) | 26. ( X ) | 36. ( X ) | 46. ( √ ) |
| 7. ( X )  | 17. ( √ ) | 27. ( X ) | 37. ( √ ) | 47. ( X ) |
| 8. ( √ )  | 18. ( X ) | 28. ( X ) | 38. ( X ) | 48. ( X ) |
| 9. ( X )  | 19. ( X ) | 29. ( X ) | 39. ( √ ) | 49. ( √ ) |
| 10. ( X ) | 20. ( √ ) | 30. ( √ ) | 40. ( X ) | 50. ( X ) |
|           |           |           |           | 51. ( X ) |

### \*(8) What is the function (use) of ... ?

1. To measure temperature of liquids
2. To protect heart and lung
3. For cutting and welding metals
4. Maintain body balance
5. To protect it
6. It is responsible for involuntary actions
7. To measure mass of large objects
8. In making soda water and dry ice
9. Insulating glass window

## \*(9) Problems :

(1) –

1- **Weight on earth** = **mass**  $\times$  **10** =  $12 \times 10 = 120 \text{ N}$

2- **Weight on moon** = **weight on earth** / **6** =  $120 / 6 = 20 \text{ N}$

---

(2) –

1- 18 kg

2- **Weight on earth** = **mass**  $\times$  **10** =  $18 \times 10 = 180 \text{ N}$

3- **Weight on moon** = **weight on earth** / **6** =  $180 / 6 = 30 \text{ N}$

---

(3) –

1 - c

2 - f

3- d

4- g

5 - a

6 - b

---

(4) –

1.

1. dilute hydrochloric acid

2. Calcium carbonate

2.

1. Soft drinks

2. dry ice

3. photosynthesis

3.

because it is heavier than air

---

(5) –

- spinal cord

- 1. Grey matter

2. White matter

---

(6) –

1. Dilute hydrochloric acid

2. Calcium carbonate

3. heavier than air

---

(7) –

1 - b

2 - a

3- d

4- c

---

(8) –

1. oxygen gas

2. because it is scarcely dissolve in water

3. hydrogen peroxide

4. catalyst

---

(9) –

1 - d

2 - c

3- f

4- a

5 - b

6 - g

---

(10) –

- spinal nerves : 12 pairs

- cranial nerves : 31 pairs

---

(11) –

1. CO<sub>2</sub> gas

2. 1. Dilute hydrochloric acid

2. Calcium carbonate

3. CO<sub>2</sub> gas

(12) –

1. O<sub>2</sub> gas
  2. hydrogen peroxide
  3. it is scarcely dissolve in water
- 

(13) –

- |       |       |      |      |
|-------|-------|------|------|
| 1 - b | 2 - c | 3- e | 4- a |
|-------|-------|------|------|
- 

(14) –

1. Manganese dioxide
  2. oxygen
  3. water
- 

(15) –

1. Dilute hydrochloric acid
  2. Calcium carbonate
  3. CO<sub>2</sub> gas
- 

(16) –

1. 1. hydrogen peroxide  
2. manganese dioxide  
3. oxygen
  2. act as catalyst
- 

(17) –

- |             |                   |                    |
|-------------|-------------------|--------------------|
| 1 - Nucleus | 2 - cytoplasm     | 3- Dendrites       |
| 4- Axon     | 5 - Myelin sheath | 6 – Axon Terminals |
- 

(18) –

- 1- Cerebrum
  - 2- Cerebellum
  - 3- Medulla Oblongata
- 

(19) –

- 1- Medical thermometer
  - 2-
    - 1- Thick glass tube
    - 2- Constriction
    - 3- Mercury bulb
- 

(20) –

- 1- nerve cell
  - 2- a- cell body  
b- nucleus  
c- axon
- 

(21) –

- 1- 30 kg
  - 2- **Weight on earth = mass × 10 = 30 × 10 = 300 N**
  - 3- **Weight on moon = weight on earth / 6 = 300 / 6 = 50 N**
-

(22) –

- (a) Constriction
- (b) Glass bulb containing mercury.
- (c) Glass tube.
- (d) Capillary tube.

---

(23) –

- |                  |               |                   |
|------------------|---------------|-------------------|
| 1 - Nucleus      | 2 - cytoplasm | 3- Axon Terminals |
| 4- Myelin sheath | 5 - Axon      | 6 – Dendrites     |

---

(24) –

- 1- Celsius thermometer
- 2- Measure liquid temperature
- 3- Mercury

---

(25) –

- 1- Cerebrum
- 2- Cerebellum
- 3- Medulla Oblongata
- 4- Maintain body balance



# Mini Revision

## \*(1) Choose the right answer:

**Mr. Ahmed Elbasha**

1. The best metal in conducting heat is .....  
a. aluminum                      b. iron.                      c. copper.                      d. mercury.
2. The gas which turns limewater turbid is ..... gas.  
a. oxygen                      b. nitrogen                      c. carbon dioxide                      d. ozone
3. The ribcage in the human body consists of ..... of ribs.  
a. 10 pairs                      b. 11 pairs                      c. 12 pairs                      d. 13 pairs
4. When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar the element formed is .....  
a. oxygen.                      b. nitrogen.                      c. hydrogen.                      d. carbon.
5. The joint is the location of meeting of .....  
a. two bones.                      b. muscle with bone.                      c. two muscles.                      d. two cells.
6. The best metal in conducting heat is .....  
a. aluminum                      b. copper.                      c. iron.                      d. wood .
7. When oxygen combined with an element, the mass of the product is ..... the mass of element.  
a. equal to                      b. less than                      c. more than                      d. (a) and (b)
8. Which of the following is from slightly movable joints .....  
a. thigh.                      b. wrist.                      c. ankle.                      d. knee
9. The weight of the body on the Earth 's surface is 6 Newton, so its weight on the moon surface is .....  
a. 1 kg .                      b. 1 Newton.                      c. 6 kg.                      d. 6 Newton.
10. The gas which is used with acetylene in welding metals is ..... gas.  
a. carbon dioxide                      b. nitrogen                      c. hydrogen                      d. oxygen
11. Which of the following is from joints? .....  
a. Femur.                      b. Shaft.                      c. Pelvic.                      d. Knee.
12. .... nearly equals the mass of one paper clip.  
a. Kilogram                      b. Gram                      c. Newton                      d. Ton



13. Oxygen is produced from ..... process.

- a. photosynthesis      b. oxidation      c. burning      d. respiration

14. The cerebellum is responsible for .....

- a. the reflex action..      b. memory.      c. thinking      d. the body balance.

15. Nitrogen represents ..... of the Earth's atmosphere.

- a. 21 %      b. 78 %      c. 0.03 %

16. Heat insulators are used in making all of the following except .....

- a. handle of iron.      b. cooking pots.      c. woolen clothes.

17. The liquid used in the manufacture of the thermometer is .....

- a. hydrogen peroxide.      b. water.      c. mercury.      d. alcohol.

18. We can extinguish fire using ..... gas.

- a. oxygen      b. nitrogen      c. carbon dioxide

19. .... controls the reflex actions.

- a. Spinal cord      b. Cerebellum      c. Cerebrum

20. Which of the following is responsible for keeping the body balance ? .....

- a. Spinal cord.      b. Medulla oblongata.      c. Cerebellum.

21. .... gas is prepared by adding dilute hydrochloric acid to calcium carbonate.

- a. Carbon dioxide      b. Nitrogen      c. Oxygen      d. All the previous

22. A Newton is the weight of a ball its mass is .....

- a. 80 grams.      b. 8 kg.      c. 8 grams.      d. 100 grams.

23. A rapid combination between oxygen and an element producing .....

- a. heat.      b. light.      c. (a) and (b) .      d. no correct answer

24. Melting point of ice is ..... °C.

- a. 100      b. zero      c. 42      d. 37

25. The bone that connects the ribs from front is .....

- a. femur.      b. skull.      c. sternum.      d. humerus.

26. The mass of half liter of distilled water equals .....

- a. 100 gm.      b. 150 gm.      c. 500 gm.      d. 1000 gm.

27. A substance which is a good conductor of heat .....

- a. wool.      b. plastic.      c. iron.      d. wood.

28. .... are the joints that allow the movement in one direction

- a. Freely movable joints      b. Immovable joints      c. Slightly movable joints

29. Ahmed can sterilize the thermometer by using .....

- a. water.      b. benzene.      c. ethyl alcohol.

30. The main source of oxygen in air is ..... process.  
a. photosynthesis      b. respiration      c. oxidation
- 
31. Photosynthesis process in the plant depends on the presence of .....  
a. nitrogen.      b. oxygen.      c. ozone.      d. carbon dioxide.
- 
32. Humerus bone is one of the bones of .....  
a. lower limbs.      b. upper limbs.      c. backbone.      d. axial skeleton .
- 
33. .... is the gravitational force by which a body is attracted to the Earth.  
a. Weight      b. Mass      c. Volume      d. Density
- 
34. Cooking utensils are provided with handles of .....  
a. copper.      b. plastic.      c. iron.      d. aluminium.
- 
35. Every degree in the medical thermometer is divided into ..... parts.  
a. 3      b. 5      c. 6      d. 10
- 
36. Oxygen is ..... than air.  
a. heavier      b. lighter      c. colder      d. hotter
- 
37. A gas which turns limewater into turbid is ..... gas.  
a. oxygen      b. nitrogen      c. carbon dioxide      d. ozone
- 
38. The axon is covered with a fatty substance called .....  
a. gray matter.      b. synapse.      c. myelin sheath.      d. dendrites
- 
39. The carbon dioxide is used in the industry of .....  
a. steel.      b. gun powder.      c. fertilizers.      d. soft drinks.
- 
40. All the following are from the components of central nervous system except .....  
a. spinal nerve.      b. two cerebral hemispheres.  
c. spinal cord.      d. medulla oblongata.
- 
41. Hydrogen peroxide is used in preparing ..... gas.  
a. oxygen      b. carbon dioxide      c. nitrogen      d. hydrogen
- 
42. The weight is measured by ..... scale.  
a. sensitive      b. digital      c. two-arm      d. spring
- 
43. The liquid used in the Celsius thermometer is .....  
a. hydrogen peroxide      b. alcohol      c. water      d. mercury
- 
44. Which of the following is faster in conducting heat? .....  
a. Glass      b. Aluminum      c. Copper      d. Iron
- 
45. One of the slightly movable joints is the ..... joint.  
a. thigh      b. shoulder      c. wrist      d. knee
-

46..... is used to make the iron handle.

- a. Iron                                      b. Copper                                      c. Aluminum                                      d. Plastic

47. Carbon dioxide is produced when diluted hydrochloric acid is added to .....

- a. calcium carbonate                      b. calcium oxide                      c. calcium hydroxide

48. The part of the nervous system which is responsible for reflex actions is called .....

- a. cerebrum                      b. cerebellum                      c. medulla oblongata                      d. spinal cord

49. From the properties of oxygen, it is ..... soluble in water.

- a. scarcely                      b. rapidly                      c. not

50. The main idea of making a thermometer is changing the ..... of the liquid according to the changing of temperature.

- a. volume                      b. density                      c. mass                      d. weight

51. Newton equals nearly the weight of a body whose mass is .....

- a. 10 g                      b. 100 g                      c. 1000 g                      d. 10000 g

52. Myelin sheath surrounds the .....

- a. nerve cell axon                      b. cerebellum                      c. spinal cord

53. Which of the following is faster in conducting heat? .....

- a. Aluminum                      b. Iron                      c. Copper

54. Which of the following gases have great percentage in atmospheric air? .

- a. Oxygen                      b. Nitrogen                      c. Carbon dioxide

55. Among the freely movable joints are ..... joints .

- a. knee                      b. thigh                      c. elbow                      d. skull

56. Celsius is the measuring unit of .....

- a. weight                      b. temperature                      c. volume                      d. mass

57. The thoracic (rib cage) in man consists of ..... pairs of ribs.

- a. 11                      b. 31                      c. 12                      d. 14

58. Oxygen is present in the atmosphere in a gaseous state in the form of molecules whose structure is .....

- a. O<sub>3</sub>                      b. O                      c. O<sub>4</sub>                      d. O<sub>2</sub>

59. One of the properties of carbon dioxide is being .....

- a. heavier than air                      b. lighter than air                      c. scarcely soluble in water

60. Among the immovable joints is .....

- a. shoulder joint                      b. wrist joint                      c. elbow joint                      d. skull joints

61. The part which is responsible for keeping human body balance is .....

- a. two cerebral hemispheres                      b. cerebellum  
c. medulla oblongata                      d. spinal cord

62. Photosynthesis process in the plant depends on the presence of ..... gas.  
a. oxygen                                      b. nitrogen                                      c. ozone                                      d. carbon dioxide
- 
63. Mercury remains liquid between two degrees  
a.  $(-39: 357)^{\circ}\text{C}$                                       b.  $(39: -357)^{\circ}\text{C}$                                       c.  $(\text{Zero} : 100)^{\circ}\text{C}$
- 
64. The tool which is used to measure the weight is  
a. the spring scale                                      b. digital scale                                      c. two-arm scale
- 
65. The planet on which the body's weight equals 6 times as its weight on the moon is  
a. Earth                                      b. Mars                                      c. Jupiter
- 
66. The nerve cell body consists of  
a. nucleus                                      b. cytoplasm and plasma membrane                                      c. all the previous
- 
67. The gas that can be prepared by using calcium carbonate powder and dilute hydrochloric acid is  
a. oxygen                                      b. hydrogen                                      c. carbon dioxide
- 
68. The weight of a body, whose mass is 10 kg on earth surface nearly equals  
a. 10 Newton                                      b. 100 Newton                                      c. 1000 Newton
- 
69. .... is surrounded with fatty layer.  
a. Axon of nerve cell                                      b. cerebellum                                      c. spinal cord
- 
70. Reflex action takes place in .....  
a. Spinal cord                                      b. brain hemispheres                                      c. medulla oblongata
- 
71. Joint is the location of ..... meet.  
a. Two bones                                      b. muscle with bone                                      c. two muscles
- 
72. Number of the brain nerves is ..... pair of nerves.  
a. 31                                      b. 21                                      c. 12
- 
73. The grey matter in the spinal cord has ..... shape.  
a. H                                      b. F                                      c. A
- 
74. The centers of thinking and memory lie in .....  
a. medulla oblongata.                                      b. spinal cord.  
c. cerebellum.                                      d. two cerebral hemispheres.
- 
75. Reflex action takes place through the .....  
a. medulla oblongata.                                      b. spinal cord.  
c. cerebellum.                                      d. cerebrum.

**Model Answer****\*(1) Choose the right answer:**

1. C	16. B	32. B	48. D	64. A
2. C	17. C	33. A	49. A	65. A
3. C	18. C	34. B	50. A	66. C
4. D	19. A	35. D	51. B	67. C
5. A	20. C	36. A	52. A	68. B
6. B	21. A	37. C	53. C	69. A
7. C	22. D	38. C	54. B	70. A
8. D	23. C	39. D	55. B	71. A
9. B	24. B	40. A	56. B	72. C
10. D	25. C	41. A	57. C	73. A
11. D	26. C	42. D	58. D	74. D
12. B	27. C	43. D	59. A	75. B
13. A	28. C	44. C	60. D	
14. D	29. C	45. D	61. B	
15. B	30. A	46. D	62. D	
	31. D	47. A	63. A	

# **1- Complete :**

- 1 .....is the main source of oxygen on the Earth.
- 2- Nitrogen represents .....% from the air.
- 3- Oxygen represents .....from the air.
- 4- There is a large amounts of .....gas in the atmosphere.
- 5- Nitrogen exists in the atmosphere in the ..... State consists of..... atoms.
- 6- Oxygen compressed in the cylinder and uses in the ..... and .....
- 7- The global warming and rising of the temperature is the results of .....gas.
- 8- Carbon dioxide gas is formed of ..... atoms and its symbol is .....
- 9- CO<sub>2</sub> gas produces as a result of burning of organic matter as..... and .....
- 10- ..... And ..... are from the uses of the CO<sub>2</sub>.
- 11- The percentage of the carbon dioxide in the air is .....
- 12- The symbol of the nitrogen gas is .....
- 13- The percentages of the nitrogen gas in the air .....
- 14 ..... gas is formed through the lightning in the air.
- 15- Nitrogen gas helps in the formation of .....in living organisms bodies.
- 16- Nitrogen gas properties are ....., ..... and .....
- 17- Nitrogen gas uses are ....., ..... and .....
- 18- Types of joints are ....., ..... and .....
- 19- Types of muscles are ..... and .....
- 20- The body of the neuron cell contains ..... and .....
- 21- Hydrogen peroxide is used in preparation of .....
- 22- Oxygen is produced from .....process.
- 23-From the examples of bad heat conductors..... and .....
- 24-If the weight of a body is 20 Newton, its mass equals .....kg.
- 25-The graduation of the clinical thermometer is between ..... and .....

- 26- In respiration process ..... gas is consumed.
- 27- Atmospheric air contains oxygen gas in the form of molecules that have the (chemical formula) .....
- 28- is used in measuring the temperature of liquids and atmosphere.....
- 29- thermometer is used in measuring the temperature of the human body.....
- 30- The temperature of normal human body is .....C
- 31- The measuring unit of mass is ....., while measuring unit of weight is.....
- 32- If an object's weight on the Earth was 60 Newton Its weight on the moon.....
- 33- ..... Gas combines with acetylene and used in welding metals.
- 34- The medical thermometer scale starts at ..... and ends at .....
- 35- The mass is the..... of matter in an object
- 36- The fastest metal in conducting heat is .....
- 37- The handles of cooking pots are made of .....
- 38- Hydrogen peroxide is used in the preparation of..... gas.
- 39- gas is composed of oxygen which have the composition of ( $O_3$ )
- 40- gas is compressed in cylinders and it is used in hospitals
- 41- Types of joints are ....., ..... and .....
- 42- Types of muscles are ..... and .....
- 43- The body of the cell contains ..... and .....
- 44- From the examples of the reflex action ..... and .....
- 45 – ..... pair of nerves are produced from the spinal cord , called..... nerves.
- 46- ..... pair of nerves emerges from the brain , called..... nerves.
- 47- ..... extends in a canal inside the vertebral column in .....for the human.
- 48 ..... is responsible for the balancing of the body during its movement.
- 49- The brain hemisphere contains the centers of ..... and .....
- 50- The building unit of the nervous system is .....
- 51- Nervous system consists of two main systems , they are.....and .....
- 52- Number of the cranial nerves are .....pairs.



53- The grey material in the spiral cord has a letter ..... shape.

54- Cerebellum responsible for .....

55-.....controls the reflex action.

56-.....surrounds with a fatty cover layer .

### **Choose the correct answer:**

1. The device of measuring weight is.....

- a) one arm scale      b) two arm scale      c) digital scale      d) spring scale

2. An object whose weight is 20 Newton on earth, its mass is equal to.....

- a) 2kg      b) 10kg      c) 20kg      d) 200

3. The weight of a body its mass 200 gm on earth surface nearly equals .....

- a) 2 Newton      b) 20 Newton      c) 200 Newton      d) 2000 Newton

4. The mass of a body on the moon surface is 10 kg, so its mass on earth surface equals....

- a) 10 kg      b) 10 Newton      c) 60kg      d) 60 Newton

5. From the tools of measuring weight is .....

- a) kilogram      b) double pans balance      c) Newton      d) spring scale

6. The Newton is nearly equals weight of a body its mass is.....

- a) 1 gm      b) 10gms      c) 100gms      d) 1000gms

7. The mass of half liter of water equals .....

- a) 5gms      b) 50gms      c) 500gms      d) 5000 gms

8. Which of the following is faster in conducting heat?.....

- a) aluminium      b) copper      c) iron      d) glass

**9. The weight of a person in a balloon in a certain height from the earth surface equals 70 Newton, what is the weight of the person on earth surface.....**

- a) 68 Newton                      b) 69 Newton    c) 70 Newton                      d) 71 Newton

**10. From the substances which are bad conductors of heat are.....**

- a) iron & aluminum                      b) copper & glass  
c) glass & wood                      d) aluminum & copper

**11. The operation of thermometer depends on the idea of.....**

- a) the change of gases' volume with the change in temperature.  
b) the change of liquids' volume with the change in temperature.  
c) the change of gases' mass with the change in temperature.  
d) the change of liquids' mass with the change in temperature

**12. The clinical thermometer is different from the Celsius thermometer in.....**

- a) The type of matter presents in the reservoir.  
b) The presence of constriction in the capillary tube.  
c) The type of matter used in manufacturing.  
d) The effect of change temperature on the present liquid volume.

**13. All the following from the properties of mercury as thermometric substance except....**

- a) good conductor of heat.                      b) the expansion is regular  
c) give limited extent to measure the temperature.  
d) not adhere to the walls of capillary tube.

**14. Which of the following gases have great percentage in the atmospheric air?**

- a) oxygen                      b) nitrogen                      c) carbon dioxide                      d) water vapor

**15. Oxygen presents in the atmosphere in gaseous state in form of molecules structure.....**

- a) O                      b) O<sub>2</sub>                      c) O<sub>3</sub>                      d) O<sub>4</sub>

**16. Respiration & combustion processes consume .....gas.**

- a) oxygen              b) nitrogen              c) carbon dioxide              d) argon

**17. Hydrogen peroxide decomposes in presence of manganese dioxide to.....**

- a) oxygen & hydrogen                      b) oxygen & water  
c) hydrogen & water                      d) hydrogen & manganese

**18. A gas which is used with acetylene in welding metals is.....**

- a) oxygen              b) nitrogen                      c) carbon dioxide              d) hydrogen

**19. The maximum and minimum graduation of the clinical thermometer is between:.....**

- a) 35: 42 °C              b) 35: 45 °C                      c) 32: 42 °C                      d) 32: 45 °C

**20. The planet on which the body weight equals 6 times as its weight on the moon is.....**

- a) mars                      b) earth                      c) Jupiter

**21. The weight (Newton) = The mass (kilogram) x .....**

- a) 10                      b) 100                      c) 1000

22. If the body weight on earth surface equals 6 Newton, its weight on moon surface equals.

- a)  $\frac{1}{2}$                       b) 1                      c) 6                      d)  $\frac{1}{6}$

### **write the scientific term :**

- 1-the most abundant gas in air . ( ..... )
- 2- It contributes in the manufacture of gunpowder and ammonium nitrate. ( ..... )
- 3- A gas that recently used in filling car tires. ( ..... )
- 4- A gas has alkaline effect on litmus paper. ( ..... )
- 5- The main source of nitrogen gas. ( ..... )
- 6- Chemical substance formed by combination between oxygen and nitrogen during lightening. (     )
- 7- A gas that turbid clear lime water when it passes through it for a short time ( ..... )
- 8 - A gas that the increase of its percentage cause global warming . ( ..... )
- 9-Chemical substance used to detect the presence of carbon dioxide gas. ( ..... )
- 10- A gas that raises the Earth temperature when its percentage increase. ( ..... )
- 11- A gas that is used by the plant to make photosynthesis process. ( ..... )
- 12- A gas that its molecule is` composed of three oxygen atoms. ( ..... )
- 13- Chemical substance that decomposed(dissociated) into water and oxygen during preparation of oxygen in laboratory. ( ..... )
- 14- Objects help in condensation of water vapor and falling rains. ( ..... )
- 15- A flame used in cutting and welding metals. ( ..... )
- 15-The materials that are used in manufacture of cooking utensils kettles. ( ..... )
- 16- The melting point of ice. ( ..... )
- 17- The boiling point of water. ( ..... )
- 18- A device used to measure temperature of the (liquids). ( ..... )
- 19- The materials that don't let heat to flow through. ( ..... )
- 20- The materials that let heat to flow through. ( ..... )
- 21- A device used to measure the temperature of the human body. ( ..... )

- 22- The liquid that is used in sterilizing the medical thermometer. (.....)
- 23- The part of medical thermometer prevent mercury from going back (.....)
- 24- The thermometer whose scale ranges from 35°C to 42°C. (.....)
- 25- The thermometer whose scale ranges from 0°C to 100°C or 200°C. (.....)
- 26- The measuring devices of temperature. (.....)
- 27- The materials that are used in making cooking pots and kettles. (.....)
- 28- The faster metal in conducting heat. (.....)
- 29- Aluminum, copper, stainless steel and iron. (.....)
- 30- Wood, paper, glass and plastic. (.....)
- 31- The measuring unit of weight that is almost equal to the weight of an object whose mass is 100 grams. (.....)
- 32- A force with which a body is attracted to the Earth. (.....)
- 33- The measuring device of weight. (.....)
- 34- A device used to measure the mass of objects. (.....)
- 35- The measuring unit of mass that is almost equal to the mass of one liter of water. (...)
- 36- The measuring unit of mass that is almost equal to the mass of one paper clip. (.....)
- 37- The amount of matter in an object. (.....)
- 38- The main system that is responsible for the body movement. (.....)
- 39- The axis of the skeleton in the human body. (.....)
- 40- A structure links the brain with the spinal cord and is responsible for the involuntary actions. (.....)
- 41- The 12 pairs of nerves extending from the brain. (.....)
- 42- The fatty substances that covers the axon. (.....)
- 43- The basic structural unit of the nervous system. (.....)
- 44- The automatic response of the body to different stimuli. (.....)
- 45- The structure which consists of 33 small bones. (.....)
- 46- The cells which have the ability to contract and relax. (.....)
- 47- The 31 pairs of nerves extending from the spinal cord. (.....)
- 48- The structure by which muscles are fixed to the bones. (.....)

- 49- The area of two bones meeting. ( ..... )
- 50- Areas between vertebrae separate and protect them from their friction during movement . ( ..... )
- 51- The skeleton which includes the bones of upper and the lower limbs . ( ..... )
- 52- The structure which consists of the skull, backbone and ribcage. ( ..... )
- 53- It consists of gray matter in the form of "H" letter surrounded by white matter (.....)
- 54- The body organ which is responsible for the reflex action. ( ..... )
- 55- A part of brain that lies at the back area of the brain below the two hemispheres (....)
- 56- The system that consists of the brain and the spinal cord. ( ..... )
- 57- A chemical substance that absorbs carbon dioxide gas from air. ( ..... )
- 58- The gas that represents one fifth of the volume of the atmosphere. ( ..... )
- 59- A gas used in the manufacture of ammonia. ( ..... )
- 60- A gas used in making soft drinks . ( ..... )
- 61- A layer in atmosphere that protect the Earth from harmful radiations coming from the sun. ( ..... )
- 62- A gas formed by adding vinegar (lemon juice) to sodium bicarbonate. ( ..... )
- 63- A slow combination between oxygen and element in the presence of Water. (.....)
- 64- substance formed by passing carbon dioxide over lime water ( ..... )
- 65- A chemical substance as a catalyst in the preparation of oxygen gas. ( ..... )

### **Correct the under line words :**

- 1- Weight is the amount of matter in an object.
- 2- All matters have weight whatever their shapes, their place or their physical states.
- 3- The mass of a piece of stone on the earth's surface is smaller than its mass on the moon.
- 4- Gram is the only unit for measuring mass.
- 5- Kilogram equals the mass of one paper clip.
- 6- Gram is used to measure very big masses.

- 7- Ton is suitable for measuring mass of jewellery, while gram is suitable for measuring fruits
- 8- Sensitive two arm scale is used to measure big masses as vegetables.
- 9- The reason of object's falling downward earth is mass.
- 10- Mass is the gravitational force by which a body is attracted to the earth.
- 11- The effect of weight is directed towards the upper of the earth.
- 12- On the earth, there is weightlessness, but in space objects have weight.
- 13- Newton is the measuring unit of mass.
- 14- Gram equals the weight of an object whose mass is 100 grams.
- 15- When the mass of two big oranges equals 500 grams, so their weight equals 6Newton.
- 16- The weight of any object can be measured by the balance scale.
- 17- The extension of the wire of the spring scale equals the mass of the hanged object on it.
- 18- By increasing the mass of the piece of stone, its weight decreases.
- 19- Weight is inversely proportional to mass.
- 20- Mass = weight  $\times 10$
- 21- When the mass of a toy car equals 1 kilogram, so its weight equals 300 Newton.
- 22- When the weight of a chair on earth's surface is 12 Newton, so its weight on the moon's surface is 6Newton.
- 23- When the distance between an object and the center of its planet increases, its weight increases, as the gravitational force increases.
- 24- Heat is a form of energy that transfers from the object of lower temperature to the.



higher.

25- People wear heavy clothes in winter to decrease their feeling with heat.

26- All materials are good conductors of heat.

27- Touching a cup of hot water causes the transfer of heat from your hand to the cup.

28- The measuring devices of temperature are scales.

29- The degree of hotness or coldness is heat.

30- Copper, iron and air allow heat to transfer through.

31- Air is a good heat conductor.

32- Plastic, paper and wood are good conductors of heat.

33- Copper is bad conductor of heat.

34- Aluminum is a poor conductor of heat.

35- Water is used in the manufacturing of insulating glass windows as it's an insulator.

36- Materials that conduct heat are called heat insulators.

37- All materials have the same ability to conduct heat.

38- Aluminum conducts heat faster than copper.

39- Cooking pots are made of wood.

40- Handles of cooking pots are made of copper.

41- Wood is a good conductor of heat.

42- Good conductors of heat are used in making heavy blankets and woolen clothes.

43- We can measure the temperature accurately by touching.

44- The idea of making thermometer depends on the expansion and contraction of solids by changing the temperature.

45- The medical thermometer has a capillary tube to prevent mercury from going

back to the mercury bulb.

- 46- The scale of medical thermometer starts from 0°C to 100°C.
- 47- Each degree in the medical thermometer is divided into 3 parts.
- 48- you shouldn't sterilize the medical thermometer before using.
- 49- The Celsius thermometer is used for measuring the temperature of human being.
- 50- You must not touch a broken thermometer because mercury is hot.
- 51- The normal temperature of the healthy person is 35°C.
- 52- The melting point of ice is 100°C
- 53- The molecule of ozone gas consists of four oxygen atoms.
- 54- Nitrogen peroxide gas is decomposed to water and nitrogen in the presence of manganese dioxide.
- 55- The joints of the skull are from limited movement joints.
- 56- Carbon dioxide is from the component of explosives.
- 57- Nitrogen gas is used in putting off fires.
- 58- A black precipitate is formed when CO<sub>2</sub> gas is passed in lime water.
- 59- The nodular bacteria fix air Oxygen in the roots of legumes plants.
- 60- Nitrogen is characterized by easily dissolving in water

### **Compare between**

<b><u>Point of comparison</u></b>	<b><u>Heat conductors</u></b>	<b><u>Heat insulators</u></b>
<b>Definition</b>		

<b>Usage</b>		
--------------	--	--

<b><u>Point of comparison</u></b>	<b><u>Mass</u></b>	<b><u>Weight</u></b>
<b>Definition</b>		
<b>Measuring unit</b>		
<b>Measuring devices</b>		
<b>Direction</b>		
<b>Changing by the place</b>		

<b><u>Point of comparison</u></b>	<b><u>Medical thermometer</u></b>	<b><u>Celsius thermometer</u></b>
<b>uses</b>		
<b>Graduation</b>		
<b>Liquid inside</b>		
<b>Presence of constriction</b>		

Skull	Backbone	Rib cage

Voluntary muscles	Involuntary muscles

Immovable joints	Slightly movable joints	Freely movable joints

Bones of lower limbs	Bones of upper limbs

### **Mention the importance of :**

- 1) Cerebellum .....
- 2) Spinal cord.....
- 3) Cerebrum hemispheres .....
- 4) Medulla oblongata.....
- 5) Grey matter in the shape of letter (H) .....

### **Mention one function of :**

- 1- Cartilages between the vertebrates of the backbone.  
.....
- 2- Nerves.  
.....
- 3- Tendons.  
.....
- 4- Cerebellum  
.....
- 5- Joints.  
.....
- 6- Cerebrum hemispheres.  
.....
- 7- Rib cage.  
.....

## Give Reason For

1- The presence of the brain inside the skull.

.....

2- Damage of medulla oblongata leads to death.

.....

3- The withdrawal of the hand quickly if touches a hot surface.

.....

4- You must expose yourself to sunlight for suitable period.

.....

5- The thigh joint is a freely movable joint.

.....

6- You must eat healthy food, rich in calcium, phosphorus and vitamin D.

.....

7- Muscles play an important role in our body movement.

.....

8- The ribcage surrounds both the heart and the lungs.

.....

9- The backbone contains cartilage between vertebrae.

.....

10- It is important not to take sleeping pills without the doctor prescription.

.....

11- The spinal cord is surrounded by the vertebrae of the backbone.

.....

12- The spinal cord is located inside the backbone.

.....

13- Brain is the control center in the human body.

.....

14- The color of red and blue litmus paper doesn't change when they  
are placed in a cylinder filled with oxygen .

.....

15- Clear limewater is used to detect the presence of carbon dioxide gas.

.....

16- Clear limewater gets turbid if carbon dioxide gas passes through it.

.....

17- Nitrogen is used to store flammable materials - liquified explosive petroleum.

.....

18- Divers use oxygen cylinders during diving under the water surface.

.....

19- The main source to prepare nitrogen is the air.

.....

20- Liquified nitrogen is used for cooling food products and medicines.

.....

21- Nitrogen is recently used for in filling car tires.

.....

22- Nitrogen is called azote which means lifeless.

.....

23- A lighted match put off if it is placed in a cylinder filled with nitrogen.

.....

24- Nitrogen (oxygen) gas is collected by the downward displacement of water.

.....

25- During preparation of nitrogen, air is passed over hot copper.

.....

26- During preparation of nitrogen, air is passed over sodium or potassium hydroxide.

.....



27- Nitrogen is very important in the human life.

.....

28- Nitrogen contributes in the composition of all living tissues.

.....

29- Carbon dioxide gas has a great importance for the continuity of life on Earth.

.....

30- The environment suffers from the increasing the percentage of Carbon dioxide

.....

31- Yeast is added to dough on making bread.

.....

32- Carbon dioxide gas is used in extinguishing (put off) fires.

.....

33- Burning a magnesium ribbon in the presence of Carbon dioxide gas produces white and black substances.

.....

34- Increase the percentage of Carbon dioxide gas in air is harmful

.....

35- Carbon dioxide gas is collected by upward displacement of air.

.....

36- Carbon dioxide gas is not collected by downward displacement of water.

.....

37- Ozone layer(atmosphere)is very important for the life of all organisms.

.....

38- Oxy-acetylene flame is used for cutting and welding metals.

.....

39- Oxygen cylinders are used during climbing mountains.

.....

40- The percentage of oxygen gas remains constant in the atmosphere.

.....

41- Smoke and dust have important role in the formation of rains and snow

.....

42- A burning match is still burning in a cylinder filled with oxygen.

.....

43- Iron nail rust when they exposed to moist air.

.....

44- Rusting of iron has many disadvantages.

.....

45- The medical thermometer must be put in ethyl alcohol before using.

.....

46- We can't measure the temperature of objects by touching.

31- Yeast is added to dough on making bread.

.....

32- Carbon dioxide gas is used in extinguishing (put off) fires.

.....

33- Burning a magnesium ribbon in the presence of Carbon dioxide gas produces white and black substances.

.....

34- Increase the percentage of Carbon dioxide gas in air is harmful (very danger) .

.....

35- Carbon dioxide gas is collected by upward displacement of air.

.....

36- Carbon dioxide gas is not collected by downward displacement of water.

.....

37- Ozone layer(atmosphere)is very important for the life of all organisms.

.....

38- Oxy-acetylene flame is used for cutting and welding metals.

.....

39- Oxygen cylinders are used during climbing mountains.

.....

40- The percentage of oxygen gas remains constant in the atmosphere.

.....

41-Smoke and dust have important role in the formation of rains and snow

.....

42- A burning match is still burning in a cylinder filled with oxygen.

.....

43- Iron nail rust when they exposed to moist air.

.....

44- Rusting of iron has many disadvantages.

.....

45- The medical thermometer must be put in ethyl alcohol before using.

.....

46- We can't measure the temperature of objects by touching.

.....

47- Mercury is used in making thermometers.

.....

48- There is a constriction in the medical thermometer.

.....

49- Cooking utensils are made of copper, aluminum or stainless steel.

50- We must shake the medical thermometer well before using.

51- We can't measure the boiling point of water by using the medical thermometer.

52- Celsius thermometer can't be used to measure the human body temperature.

53- The thermometer must be kept out the reach of children.

54- The mercury gives wide range to measure the temperature.

55- The handles of cooking utensils are made of plastic or wood.

56- Leaving spaces(gapes) between the railway bars.

57- We wear the heavy clothes in winter.

58- The mass of a body on the Earth is equal to its mass on moon.

59- Weight of an object on moon equals ( $\frac{1}{6}$ ) of its weight on Earth.

60- In cold countries , the windows are made of two sheets contains air.

61- The importance of heat.

62- Weight is different from planet to another.

.....

63- Gravity on moon less than gravity on Earth.

.....

## What Happen when?

1- There aren't any joints between the bones.

.....

2- You touch a hot body suddenly by your hand.

.....

3- The thigh joint is slightly movable joint.

.....

4- The front muscle relaxes and back muscle contract in the arm.

.....

5-Setting for long times in front of computers.

.....

6- Continues exposing for polluted air of factories.

.....

7- Nearing an external body from the eye.

.....

8- Nitrogen gas is not present in the atmospheric air.

.....

9- Atmospheric air is passed over .

.....

10- A lighted magnesium ribbon is placed in a cylinder filled with nitrogen,  
then add some drops of water to the produced substance.

.....

11- A wet litmus paper is exposed to ammonia gas. Give reason.

.....

12- Oxygen reacts with nitrogen during lightning.

.....

13- Getting rid of soil bacteria.

.....

14- The percentage of carbon dioxide gas in air increase.

.....

15- The percentage of carbon dioxide gas in air decrease.

.....

16- A lighted candle is put in a cylinder filled with carbon dioxide gas.

.....

17- A lighted magnesium ribbon is inserted in a cylinder filled with  $\text{CO}_2$  .

.....

18- Yeast is added to dough on making bread.

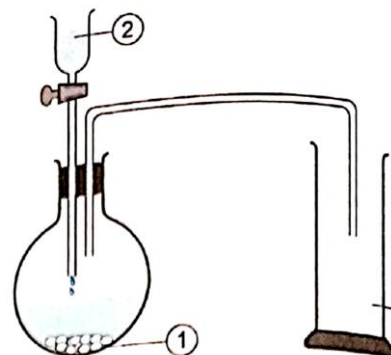
.....

19- Lemon juice(vinegar) reacts(added to) with sodium bicarbonate

.....

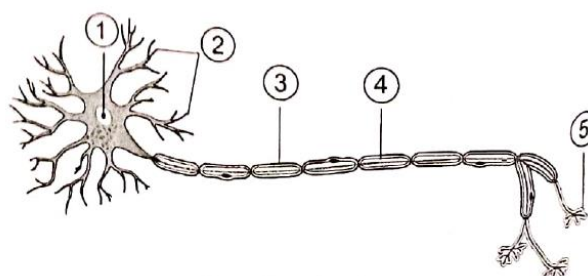
### Look at the following fig :

- 1- This method is the preparation of.....gas
- 2- What is the name of substance
  - 1-.....
  - 2-.....



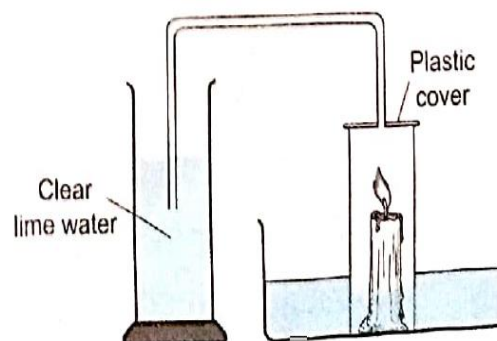
### Look at the following fig :

- 1- What is the name of this fig.  
.....
- 2- Put label :
  - 1-.....
  - 2-.....
  - 3-.....
  - 4-.....
  - 5-.....



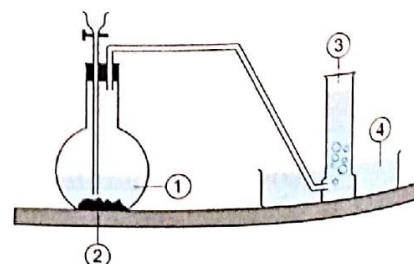
### Look at the following fig :

- 1- The candle will .....because it  
Consumes .....gas
- 2- The clear lime water turn into .....  
Due to the passage of .....through it .



### Look at the following fig :

- 1- This method is the preparation of.....gas
- 2- Label the fig:
  - 1-.....
  - 2-.....
  - 3-.....
  - 4-.....





## **Problems :**

1- Calculate the weight of a body, its mass on Earth is 3 Kg.

.....

2- Calculate the mass of a body its weight is 200 N.

.....

3- Calculate the weight on moon for a body its weight on Earth's surface is 60 Kg.

.....

4- A body of mass 50 Kg on moon surface. Calculate:

a) Its weight on Earth.

.....

b) Its weight on moon.

.....

5- If the mass of a ball on Moon's surface is 50 kg , find the mass on Earth's surface . Give reason for your answer.

.....

6- If the weight on Earth is 600 N. calculate its weight on moon.

.....

7- If the weight is 20 N. calculate its mass.

.....

8- An object with mass = 200 gm, calculate its weight.

.....

9- If the mass on Earth is 10 Kg, calculate:

- a) Its mass on moon. ....
- b) Its weight on Earth. ....
- c) Its weight on moon. ....

10- A body of mass 5 Kg. on Earth. Calculate its mass on moon.  
Give reason for your answer.

.....  
.....

11- If the mass on moon is 60 Kg. Find its mass on Earth and  
give reason for your answer.

.....  
.....



قم بفتح كاميرا الموبايل امام  
الكود تصل لفتاتنا فورا على  
اليوتيوب



## (Model answer )Final Revision Pr.6

### Complete :

- 1- **green plant** is the main source of oxygen on the Earth.
- 2- Nitrogen represents **78 %** from the air.
- 3- Oxygen represents **21%** from the air.
- 4- There is a large amounts of **nitrogen** gas in the atmosphere.
- 5- Nitrogen exists in the atmosphere in the **gas** State which consists of **Two** atoms.
- 6- Oxygen compressed in the cylinder and uses in the **diving** and **welding**
- 7- The global warming and rising of the temperature is the results of **CO<sub>2</sub>** gas.
- 8- Carbon dioxide gas is formed of **3** atoms and its symbol is **CO<sub>2</sub>**
- 9- Carbon dioxide gas produces as a result of burning of organic matter as **Wood** and **Coal (oil )**
- 10- **making soft drinks** And **making dry ice** are from the uses of the CO<sub>2</sub>.
- 11- The percentage of the carbon dioxide in the air is **0.03 %**
- 12- The symbol of the nitrogen gas is **N**
- 13- The percentages of the nitrogen gas in the air **78%**
- 14- **Nitrogen Oxides** is formed through the lightning in the air.
- 15- Nitrogen gas is collected by **water** during its preparation in the lab.
- 16- Nitrogen gas properties are **slightly soluble in water**, **colorless** and **tasteless**
- 17- Nitrogen gas uses are **fil car tires**, **making stainless steel** and **making gun powder**
- 18- Types of joints are **movable**, **freely immovable** and **slightly movable**
- 19- Types of muscles are **voluntary** and **involuntary**
- 20- The body of the cell contains **nucleus** and **cytoplasm** ...
- 21- Hydrogen peroxide is used in preparation of **Oxygen**
- 22- Oxygen is produced from **photosynthesis** process.
- 23- From the examples of bad heat conductors **wood** and **plastic**
- 24- If the weight of a body is 20 Newton, its mass equals **2 kg**.
- 25- The graduation of the clinical thermometer is between **35** and **42**



Mr science

- 26- In respiration process **oxygen** gas is consumed.
- 27 Atmospheric air contains oxygen gas in the form of molecules that have the composition (chemical formula) **O<sub>2</sub>**
- 28- **celsius Thermometer** is used in measuring the temperature of liquids and atmosphere.
- 29- **medical** thermometer is used in measuring the temperature of the human body.
- 30- The temperature of normal human body is **37**
- 31- The measuring unit of mass is **kg (g)**, while the measuring unit of weight is **(N)**
- 32- If an object's weight on the Earth was 60 Newton so.  
Its weight on the moon is **60/6=10 N**
- 33- **oxygen** Gas combines with acetylene and used in welding metals.
- 34- The medical thermometer scale starts at **35** and ends at **42**
- 35- The mass is the **amount** of matter in an object
- 36- The fastest metal in conducting heat is **copper**
- 37- The handles of cooking pots are made of **plastic**
- 38- Hydrogen peroxide is used in the preparation of **oxygen** gas.
- 39- **Ozone** gas is composed of oxygen which have the composition of (O<sub>3</sub>)
- 40- **Oxygen** gas is compressed in cylinders and it is used in mechanical ventilation in hospitals.
- 41- Types of joints are **immovable**, **freely movable** and **slightly movable**
- 42- Types of muscles are **voluntary** and **involuntary**
- 43- The body of the cell contains **cytoplasm** and **nucleus**
- 44- From the examples of the reflex action **trying balance** and **withdrawal hand on touching hot object**
- 45 – **31** pair of nerves are produced from the spinal cord , called **Spinal** nerves.
- 46- **12** pair of nerves emerges from the brain , called **cranial** nerves.
- 47- **spinal cord** extends in a canal inside the vertebral column in **Nervous system** for the human.
- 48- **cerebellum** is responsible for the balancing of the body during its movement.
- 49- The brain hemisphere contains the centers of **thinking** and **writing**



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- 50- The building unit of the nervous system is **nerve cell**
- 51- Nervous system consists of two main systems , they are **Central** and **peripheral**
- 52- Number of the brain nerves are **12** pairs.
- 53- The grey material in the spiral cord has a letter **H** shape.
- 54- Cerebellum responsible for **Body balance**
- 55- **Spinal cord** controls the reflex action.
- 56- **axon** surrounds with a fatty cover.

### **Choose:**

- 1. Spring scale
- 2. 2kg
- 3. 2 Newton
- 4. 10kg
- 5. Spring scale
- 6. 100 gms
- 7. 500 gms
- 8. copper
- 9. 71 Newton
- 10. glass & wood
- 11. The change of liquid's volume with the change in the temperature
- 12. The presence of constriction in the capillary tube
- 13. Give limited extend to measure the temperature
- 14. Nitrogen
- 15. O<sub>2</sub>
- 16. Oxygen
- 17. oxygen water
- 18. Oxygen
- 19. 35:42
- 20. Earth
- 21. 10
- 22. 1

## Write scientific term :

- 1-A gas used in the treatment of skin tumors. (nitrogen)
- 2- It contributes in the manufacture of gunpowder and ammonium nitrate. (nitrogen)
- 3- A gas that recently used in filling car tires. (nitrogen)
- 4- A gas has alkaline effect on litmus paper. (nitrogen)
- 5- The main source of nitrogen gas. (air)
- 6- Chemical substance formed by combination between oxygen and nitrogen during lightening. (nitrogen oxides)
- 7- A gas that turbid clear lime water when it passes through it for a short time. (carbon dioxide)
- 8 - A gas that the increase of its percentage cause global warming. Carbon dioxide
- 9-Chemical substance used to detect the presence of carbon dioxide gas. Lime water
- 10- A gas that raises the Earth temperature when its percentage increase. Carbon dioxide
- 11- A gas that is used by the plant to make photosynthesis process. Carbon dioxide
- 12- A gas that its molecule is` composed of three oxygen atoms. ozone
- 13- Chemical substance that decomposed(dissociated) into water and oxygen during preparation of oxygen in laboratory. Hydrogen peroxide
- 14- Objects help in condensation of water vapor and falling rains. Dust and smoke
- 15- A flame used in cutting and welding metals. Oxyacetylene
- 15-The materials that are used in manufacture of cooking utensils kettles. Good conductors
- 16- The melting point of ice. zero
- 17- The boiling point of water.100
- 18- A device used to measure temperature of the (liquids).Celsius Thermometer
- 19- The materials that don't let heat to flow through. Insulator (bad conductor)
- 20- The materials that let heat to flow through. conductors

- 21- A device used to measure the temperature of the human body. **medical thermometer**
- 22- The liquid that is used in sterilizing the medical thermometer. **Alcohol**
- 23- The part of medical thermometer prevent mercury from going back **Constriction**
- 24- The thermometer whose scale ranges from 35°C to 42°C. **medical**
- 25- The thermometer whose scale ranges from 0°C to 100°C or 200°C. **Celsius**
- 26- The measuring devices of temperature. **Thermometer**
- 27- The materials that are used in making cooking pots and kettles. **conductors**
- 28- The faster metal in conducting heat. **copper**
- 29- Aluminum, copper, stainless steel and iron. **Conductors**
- 30- Wood, paper, glass and plastic. **Bad conductors**
- 31- The measuring unit of weight that is almost equal to the weight of an object whose mass is 100 grams. **Newton**
- 32- A force with which a body is attracted to the Earth. **Weight**
- 33- The measuring device of weight. **Spring balance**
- 34- A device used to measure the mass of objects. **balance scale**
- 35- The measuring unit of mass that is almost equal to the mass of one liter of water. **Kg**
- 36- The measuring unit of mass that is almost equal to the mass of one paper clip. **Gram**
- 37- The amount of matter in an object. **Mass**
- 38- The main system that is responsible for the body movement. **Locomotory system**
- 39- The axis of the skeleton in the human body. **Back bone**
- 40- A structure links the brain with the spinal cord and is responsible for the involuntary actions. **Medulla oblongata**
- 41- The 12 pairs of nerves extending from the brain. **cranial nerves**
- 42- The fatty substances that covers the axon. **myelin sheath**
- 43- The basic structural unit of the nervous system. **Neuron cell**
- 44- The automatic response of the body to different stimuli. **Reflex action**
- 45- The structure which consists of 33 small bones. **Back bone**
- 46- The cells which have the ability to contract and relax. **Muscular cells**
- 47- The 31 pairs of nerves extending from the spinal cord. **spinal nerves**
- 48- The structure by which muscles are fixed to the bones. **Tendons**
- 49- The area of two bones meeting. **Joints**
- 50- Areas between vertebrae separate and protect them from their friction



during movement .**cartilage**

51- The skeleton which includes the bones of upper and the lower limbs .  
**appendicular**

52- The structure which consists of the skull, backbone and ribcage. **axial skeleton**

53- It consists of gray matter in the form of "H" letter surrounded by a white matter. **Spinal**

54- The body organ which is responsible for the reflex action. **Spinal cord**

55- A part of brain that lies at the back area of the brain below the two hemispheres .

56- The system that consists of the brain and the spinal cord. **Central nervous system**

57- A chemical substance that absorbs carbon dioxide gas from air. **sodium hydroxide**

58- The gas that represents one fifth of the volume of the atmosphere. **oxygen**

59- A gas used in the manufacture of ammonia. **Nitrogen**

60- A gas used in making soft drinks . **Carbon dioxide**

61- A layer in atmosphere that protect the Earth from harmful radiations coming from the sun. **ozone layer**

62- A gas formed by adding vinegar(lemon juice)to sodium bicarbonate.**CO<sub>2</sub>**

63- A slow combination between oxygen and element in the presence of Water.  
**Oxidation**

64- substance formed by passing carbon dioxide over lime water **Calcium carbonate**

65- A chemical substance as a catalyst in the preparation of oxygen gas.  
**manganese dioxide**

### **Correct the underline words:-**

1- Mass

2- Mass

3- equal

4- Gram, kg and ton

5- Gram

6- Ton

7- Gram, kg

8- Balance scale

9- weight

10- Weight

11- center

12- on space, on earth

- |                          |                               |
|--------------------------|-------------------------------|
| 13- Gram-Kg-Ton          | 14- Newton                    |
| 15- 5 newton             | 16- spring scale              |
| 17- Weight               | 18- increases                 |
| 19- directly             | 20- Weight, Mass              |
| 21- 10 Newton            | 22- 2 Newton                  |
| 23- decreases, decreases | 24- Higher, lower             |
| 25- cold                 | 26- metals                    |
| 27- The cup to your hand | 28- thermometers              |
| 29- Temperature          | 30- Aluminium                 |
| 31- bad                  | 32- bad                       |
| 33- good                 | 34- wood                      |
| 35- Air                  | 36- good conductors of heat.  |
| 37- different            | 38- slower                    |
| 39- Aluminium            | 40- wood                      |
| 41- Copper               | 42- bad conductors of heat    |
| 43- thermometer          | 44- liquids                   |
| 45- constriction         | 46- 35°c to 42°c              |
| 47- 10 parts             | 48- should sterilize          |
| 49- medical              | 50- toxic                     |
| 51- 37°c                 | 52- 0°c                       |
| 53-three                 | 54-hydrogen peroxide – oxygen |
| 55- [immovable]          | 56- [soft drinks]             |
| 57- [Co <sub>2</sub> ]   | 58- [white]                   |
| 59-[nitrogen]            | 60-[rarely]                   |

# Compare between

<u>Point of comparison</u>	<u>Heat conductors</u>	<u>Heat insulators</u>
Definition	<i>They are substances that allow heat to flow through</i>	<i>They are substances that don't allow heat to flow through</i>
Usage	<i>Making cooking pans</i>	<i>Making the handles of cooking pans</i>

<u>Point of comparison</u>	<u>Mass</u>	<u>Weight</u>
Definition	<i>It is the amount of matter in an object</i>	<i>It is the force at which body attracted to earth</i>
Measuring unit	<i>Kg or gram</i>	<i>Newton</i>
Measuring devices	<i>Balance scale</i>	<i>Spring balance</i>
Direction	<i>No direction</i>	<i>Towards earth center</i>
Changing by the place	<i>Doesn't change</i>	<i>Change according to gravity</i>

<u>Point of comparison</u>	<u>Medical thermometer</u>	<u>Celsius thermometer</u>
uses	<i>Measure body thermometer</i>	<i>Measure liquid temperature</i>
Graduation	<i>From 35: 42</i>	<i>From 0 to 100</i>



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Liquid inside	<i>mercury</i>	<i>mercury</i>
Presence of constriction	<i>Presence</i>	<i>absent</i>

Skull	Backbone	Rib cage
Protect the brain	Protect the spinal cord	Protect the two lungs

Voluntary muscles	Involuntary muscles
They are muscles that can be controlled  Face muscles – limbs muscles	They are muscles that can't be controlled  Bladder muscles – gastrointestinal muscles

Immovable joints	Slightly movable joints	Freely movable joints
They are joints that don't allow movement  Skull joints	They are joints that allow movement in one direction only  Elbow joint	They are joints that allow movement in all directions  Shoulder joint

Bones of lower limbs	Bones of upper limbs
<p><b>Connected with pelvic bones</b></p> <p><b>Femur – shaft bones – foot bones</b></p>	<p><b>Connected with shoulder bones</b></p> <p><b>Humerus – forearm bones- hand bones</b></p>

## Mention the function of :

- 1- Cartilages between the vertebrates of the backbone.  
.....**prevent friction between bones** .....
- 2- Nerves.  
...**transfer nerve impulses**
- 3- Tendons.  
.....**fix muscles with bones** .....
- 4- Cerebellum  
...**keep the balance of body** .....
- 5- Joints.  
.....**allow the movement between bones**.....
- 6- Cerebrum hemispheres.  
.....**control the voluntary movement as walking, sitting , running** .....
- 7- Rib cage.  
.....**protect the heart and the two lungs** .....

## GR. :

- 1- Divers use oxygen cylinders during diving under the water surface.  
...**because oxygen used in breathing process** .....
- 2- The main source to prepare nitrogen is the air.  
...**because air contain 78% nitrogen gas** .....
- 3- Liquified nitrogen is used for cooling food products and medicines.  
.....**because it has very low boiling point** .....
- 4- Nitrogen is recently used for in filling car tires.  
...**because its volume still constant with temperature** .....
- 5- Nitrogen is called azote which means lifeless.

because it doesn't help in burning and not help in respiration process

6- Yeast is added to dough on making bread.

Because carbon dioxide gas produced which make bread porous and tasty ..

7- Carbon dioxide gas is used in extinguishing (put off) fires.

...because it doesn't burn and doesn't help in burning .....

8-Carbon dioxide gas is collected by upward displacement of air.

...because it heavier than air .....

9- Carbon dioxide gas is not collected by downward displacement of water.

...because it easily dissolve in water ....

10- Ozone layer(atmosphere)is very important for the life of all organisms.

because it protect earth from harmful radiations that come from the sun

11- Oxy-acetylene flame is used for cutting and welding metals.

...because its temperature 3500 Celsius .....

12- Oxygen cylinders are used during climbing mountains.

...because oxygen used in respiration process...

13- The percentage of oxygen gas remains constant in the atmosphere.

because green plant take carbon dioxide and produce oxygen gas

14-Smoke and dust have important role in the formation of rains and snow

because it helps in condensation of water vapour ...

15- A burning match is still burning in a cylinder filled with oxygen.

...because it helps in burning

16-The medical thermometer must be put in ethyl alcohol before using.

To sterilize it

17- We can't measure the temperature of objects by touching.

...because it is not accurate measurement .....

18- Mercury is used in making thermometers.

Because it expands regularly by heat and doesn't stick with the wall of cylinder

19- There is a constriction in the medical thermometer.

...to prevent mercury from return back to its bulb quickly ..

20- Cooking utensils are made of copper, aluminum or stainless steel.

...because they are good conductors of heat ...

21- We must shake the medical thermometer well before using.

...to let mercury to return back to its bulb .....

22- We can't measure the boiling point of water by using the medical thermometer.

...because its scale from 35 to 42 and water boil at 100

23-Weight of an object on moon equals ( $\frac{1}{6}$ ) of its weight on Earth.

Because the gravity on moon is 1/6 from the gravity on earth .....

24- In cold countries , the windows are made of two sheets contains air.

...because air is insulator ( bad conductor )...

25- The importance of heat measurement .

- To know our bodies temperature and liquid .....
- 26- Weight is different from planet to another.  
.....according to the gravity of planet .....
- 27-The presence of the brain inside the skull.  
.....to protect brain .....
- 28-Damage of medulla oblongata leads to death.  
.....because it control the involuntary movement as heart beats .....
- 29-The withdrawal of the hand quickly if touches a hot surface.  
.....due to the reflex action .....
- 30-You must expose yourself to sunlight for suitable period.  
.....to get vitamin D Which is important for skeletal system .....
- 31-The thigh joint is a freely movable joint.  
...because it moves in all direction .....
- 32-You must eat healthy food, rich in calcium, phosphorus and vitamin D.  
.....to avoid bone diseases as rickets .....
- 33-Muscles play an important role in our body movement.  
Because it is the engine of our bodies
- 34-The ribcage surrounds both the heart and the lungs.  
.....to protect them .....
- 35-The backbone contains cartilage between vertebrae.  
...to prevent friction between bones

## Problems:

- 1- Calculate the weight of a body, its mass on Earth is 3 Kg.  
..... $w = m \times 10 = 3 \times 10 = 30 \text{ N}$ .....
- 2- Calculate the mass of a body its weight is 200 N.  
..... $m = w / 10 = 200 / 10 = 20 \text{ kg}$ .....
- 3- Calculate the weight on moon for a body its weight on Earth's surface is 60 Kg.  
.....weight on moon = weight on earth / 6  
=  $60 / 6 = 10 \text{ N}$ ...
- 4- A body of mass 50 Kg on moon surface. Calculate:  
a) Its weight on Earth.  $W = m \times 10 = 50 \times 10 = 500 \text{ N}$ ...  
b) Its weight on moon.  $500 / 6 = 83.3 \text{ N}$ .
- 5- If the mass of a ball on Moon's surface is 50 gm , find the mass on Earth's surface . Give reason for your answer.  
50 gm because the mass doesn't change from place to another...

6- If the weight on Earth is 600 N. calculate its weight on moon.

...weight on moon =  $600/6=100$  N.....

7- If the weight is 20 N. calculate its mass.

...Mass = weight /10

Mass =  $20 /10 = 2$  kg

8- An object with mass = 200 gm, calculate its weight.

.....w = mx10

W =  $0.2 \times 10 = 2$  N

9- If the mass on Earth is 10 Kg, calculate:

a) Its mass on moon. ...10 Kg.....

b) Its weight on Earth. ...W= mx10 =  $10 \times 10 = 100$  N .....

c) Its weight on moon. ... $100 / 6 =$  .....

10- A body of mass 5 Kg. on Earth. Calculate its mass on moon.

Give reason for your answer.

.....5 Kg. because mass doesn't change from place to another ...

11- If the mass on moon is 60 Kg. Find its mass on Earth and give reason for your answer.

.....60 Kg. because mass doesn't change from place to another ...

## What happen when? :

1 - There aren't any joints between the bones.

...bones can't move .....

2- You touch a hot body suddenly by your hand.

.....withdrawal hand quickly by reflex action .....

3- The thigh joint is slightly movable joint.

.....it will move in one direction only .....

4- The front muscle relaxes and back muscle contract in the arm.

.....the arm will move down .....



5-Setting for long times in front of computers.

.....affect bad on nervous and skeletal systems .....

6- Continues exposing for polluted air of factories.

.....affect on nervous system .....

7- Nearing an external body from the eye.

Closing eye quickly by reflex action

8- Nitrogen gas is not present in the atmospheric air.

...we cant control fires

9- Atmospheric air is passed over Hot copper .

.....it will absorb Oxygen .....

10- A lighted magnesium ribbon is placed in a cylinder filled with nitrogen, then add some drops of water to the produced substance.

.....ammonia gas with pungent smell is produced .....

11- A wet litmus paper is exposed to ammonia gas. Give reason.

...change to blue because it has alkaline effect

12- Oxygen reacts with nitrogen during lightning.

...nitrogen oxides is produced .....

13- Getting rid of soil bacteria.

..... plant can't fix protein .....

14- The percentage of carbon dioxide gas in air increase.

.....temperature of earth will increase .....

15- The percentage of carbon dioxide gas in air decrease.

..... temperature of earth will increase .....

16- A lighted candle is put in a cylinder filled with carbon dioxide gas.

Give reason

it will put off .because carbon dioxide doesn't burn and doesn't help in burning

17- A lighted magnesium ribbon is inserted in a cylinder filled with  $\text{CO}_2$  .

White magnesium oxide is formed and black substance on the wall of cylinder

18- Yeast is added to dough on making bread.

carbon dioxide gas produced which make bread porous and tasty ..

19- Lemon juice(vinegar) reacts(added to) with sodium bicarbonate.

...carbon dioxide gas produced .....

Sherif Hawary



## **Final revision 6<sup>th</sup> primary 1<sup>st</sup> Term**

### **I) Choose the correct answer:**

- 1- The amount of matter in an object . [ **weight – volume – temperature - Mass**]
- 2- The force with which the body is attracted to the earth. [ **weight – volume –Mass**]
- 3- The measuring unit of mass. [ **N - C – m<sup>3</sup> – kg** ]
- 4- The measuring unit of Weight. [ **N - C – m<sup>3</sup> – kg** ]
- 5- The measuring device of small masses[**Spring scale – thermometer – sensitive scale**]
- 6- The measuring device of weight. [ **Spring scale – thermometer - arm scale**]
- 7- The measurement unit of mass which is almost equal to a mass liter of water.  
[ **kilogram – Gram -Newton - ton** ]
- 8- The measurement unit of weight which is almost equal to mass 100 grams .  
[ **kilogram – Gram -Newton - ton** ]
- 9- .....A form of energy that transfer from the higher temperature objects to the lower temperature objects. [ **light – sound - chemical-Heat**]
- 10- It is the degree of hotness or coldness of a body.  
[ **heat energy -sound energy- temperature**]
- 11- The measurement device of temperature. [ **balance - spring scale - thermometer**]
- 12- The material that conduct heat and let heat to flow through.  
[ **good conductors – bad conductors – transparent - magnetic**]
- 13- The materials that don't let heat to flow through.  
[ **good conductors – insulator – transparent - magnetic**]
14. The fastest metal in conducting heat. [ **copper – aluminum - iron - zinc**]
15. It is a good conductor of heat that is used in making cooking pots.  
[ **gold – aluminum - iron - zinc**]
16. It is a bad conductor of heat that is used in making handles of cooking utensils and kettles.  
[ **wood - coper – aluminum – iron** ]
17. A device used to measure the temperature of human body.  
[ **Medical thermometer- Spring scale – Celsius thermometer - arm scale**]

18. A device used to measure the temperature of liquids.

**[Medical thermometer- Spring scale – Celsius thermometer - arm scale]**

19. A liquid metal that is used in making thermometers. **[Mercury – bromine – alcohol]**

20- The thermometer that contains constriction.

**[Medical thermometer- Spring scale – Celsius thermometer - arm scale]** 23-

21- The thermometer which its scale starts from  $0^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ .

**[Medical thermometer- Spring scale – Celsius thermometer - arm scale]**

22- It consists of a mixture of gases surrounding the Earth.

**[The atmosphere – water – human body – light ]**

23- The most abundant gas in the atmosphere is **[Nitrogen – Oxygen – carbon dioxide]**

24- The gas that represents 21 % of the volume of the atmosphere.

**[Nitrogen – Oxygen – water vapour - carbon dioxide]**

25- A gas that helps in burning and consumed during respiration.

**[Nitrogen – Oxygen – water vapour - carbon dioxide]**

26- The chemical substance that helps in dissociation of hydrogen peroxide into  $\text{O}_2$  and water.

**[Manganese dioxide- calcium carbonate – hydrochloric acid]**

27- The substance that remains without a change in its quantity and properties

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29- The scientist who gave the Oxygen its name.

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**[ oxidation – reduction – decomposition -combustion]**

31- The slow union between  $\text{O}_2$  and element in the presence of moisture.

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32- The layer that consists of 3 Oxygen atoms ( $\text{O}_3$ ) and protects the Earth from harmful radiation.

**[ oxy acetylene – nitrogen - Ozone layer]**

33- A flame whose temperature reaches to 3500° C.

[ oxy acetylene – nitrogen - Ozone flame ]

34- A gas that is used for diving and climbing. [O<sub>2</sub> – N<sub>2</sub> – CO<sub>2</sub> - Argon]

35- It consists of two hydrogen atoms and one Oxygen atom. [water – ozone - nitrogen]

36- A gas that combines with O<sub>2</sub> to produce a flame with high temperature reaches to 3500°C. ....gas [Acetylene – nitrogen – carbon dioxide – argon ]

37- The gas that represents 0.03 of atmospheric volume

[Acetylene – nitrogen – carbon dioxide – argon ]

38- A gas that is produced during burning and respiration of living organisms .

[O<sub>2</sub> – N<sub>2</sub> – CO<sub>2</sub> - Argon]

39- The chemical substance that is used to detect (test) the presence of CO<sub>2</sub> gas.

[lime water- catalyst – litmus paper]

40- The chemical substance that is added to calcium carbonate during the preparation of CO<sub>2</sub> gas. [diluted hydrochloric acid- hydrogen peroxide- manganese dioxide ]

41- The gas that doesn't burn and doesn't help in burning and used in making five extinguishers .

[O<sub>2</sub> – N<sub>2</sub> – CO<sub>2</sub> – helium ]

42- A gas that is used in making soft drinks and bread. [O<sub>2</sub> – N<sub>2</sub> – CO<sub>2</sub> – helium ]

43- A gas that contributes in the composition of proteins and the tissues of living organisms.

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[Nervous system – digestive – respiratory – skeletal ]

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[Cell body – axon - axon terminals – dendrites ]

48- They are branches extending from the neuron's body.

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51- It consists of the brain and spinal cord. .... nervous system

[Central – peripheral – skeletal ]

52- The main control center in your body that directs and coordinates all the processes , ideas behaviors and emotions.

[The brain – spinal cord - nerves]

53- It is a bony box in which the brain is located. [ rib cage - The skull- back bone ]

54- It is a nerve block containing millions of nerve cells .

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58- It maintaining the balance of the body during movement.

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59- Linked to the brain through the spinal cord and is responsible for involuntary actions.

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60- Consists of a grey matter in the form of H letter surrounded by the white matter.

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61- Part of the nervous system responsible for reflex actions.

[medulla oblongata – cerebrum – spinal cord - cerebellum]

62- It is the nerves which emerge from the brain and spinal cord

[skeletal system - peripheral nervous system- central nervous system ]

63- They are 12 pairs of nerves which emerge from the brain.

[Cranial nerves – spinal nerves- nerve cell ]



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**[neuron – bones – joints – muscles ]**

67- It is the ability of the organism to change its position.

**[digestion - sensation - Movement]**

68- It consists of skeletal and muscular system . **[ nervous – digestive - Locomotory]**

69- It consists of the skull Backbone and rib cage.

**[ appendicular skeleton - nervous - the axial skeleton]**

70- It is part of the axial skeleton that consists of 33 vertebrae with cartilages between them . **[ rib cage - The skull- back bone – shoulder bones ]**

71- It consists of 12 pairs of ribs. **[ rib cage - The skull- back bone – shoulder bones ]**

72- It consists of the bones of upper and lower limbs

**[ appendicular skeleton - nervous - the axial skeleton]**

73- The joints between the bones of the skull that don't allow any movement .

**[ Slightly movable joints - Immovable joints – widely movable ]**

74- The joints that allow the movement in one direction .

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75- The joints that allow movement in all directions.

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قم بفتح كاميرا الموبايل أمام  
الكود تصل لجروب القيس

بعض الموبايلات لا تدعم هذه الخدمة



قم بفتح كاميرا الموبايل أمام  
الكود تصل لقناتنا فوراً على  
اليوتيوب

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### I) Choose the correct answer:

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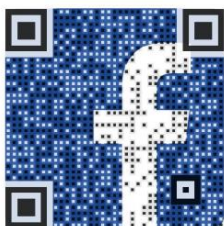
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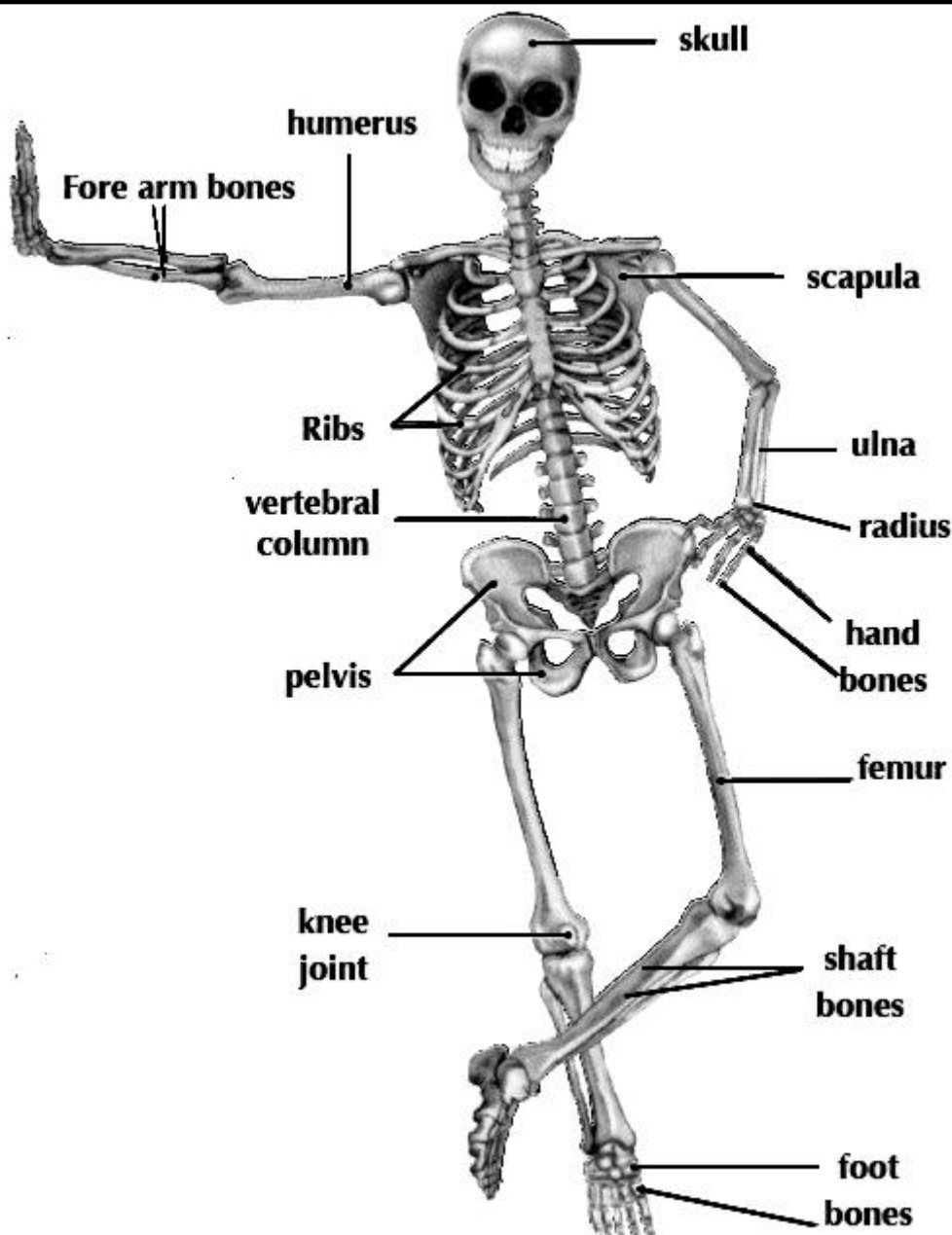
**Science**

**6th Primary.**

# **Super Revision**

**First term 2019**

**By:Mr.Mohamed Taha**



## How to obtain :

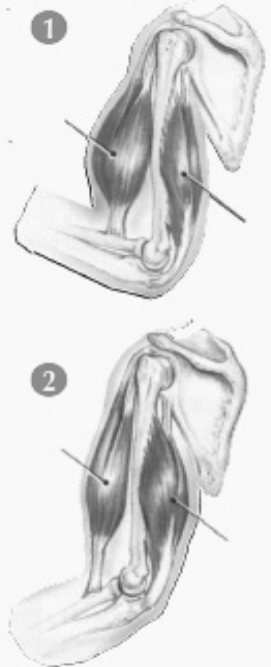
- 1- Ammonia from atmospheric air
- 2- Carbon from calcium carbonate
- 3- Oxygen from hydrogen peroxide

**Determine the type of the following joints:**

- a The knee joint
- b Elbow joint
- c Shoulder joint

**The following figure shows the arm in two different cases:**

- a Write the names of the bones and the muscles on the figure in the two different cases.
- b Describe what happens to the muscles during each case .



**What happens if:**

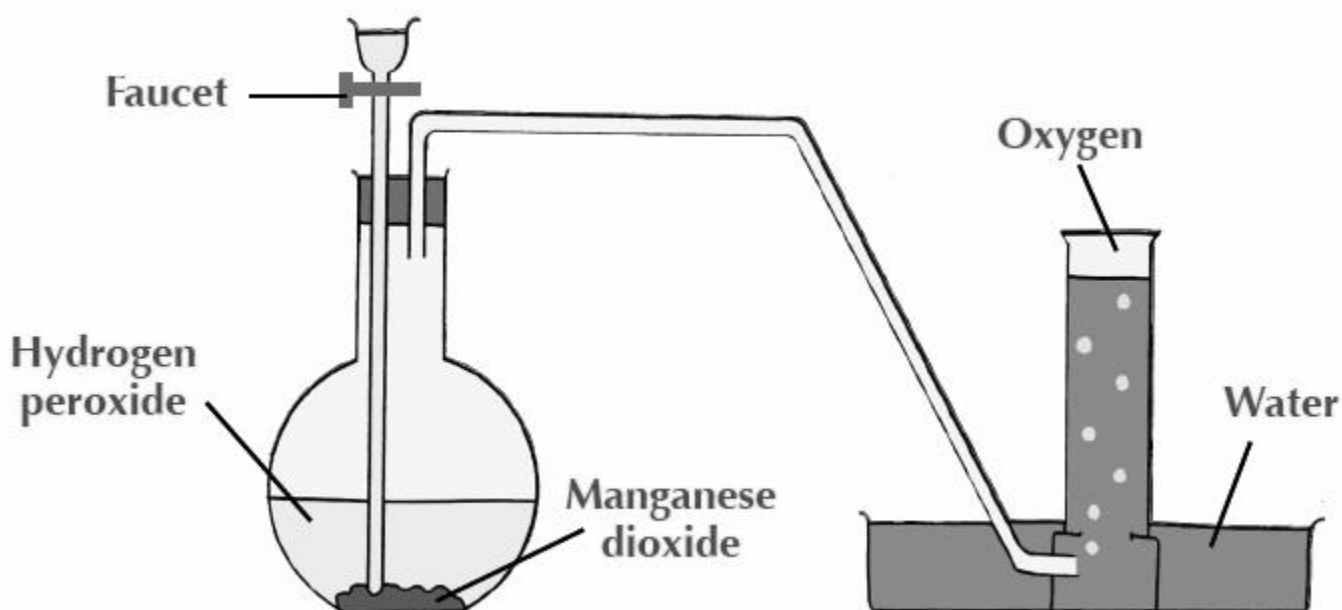
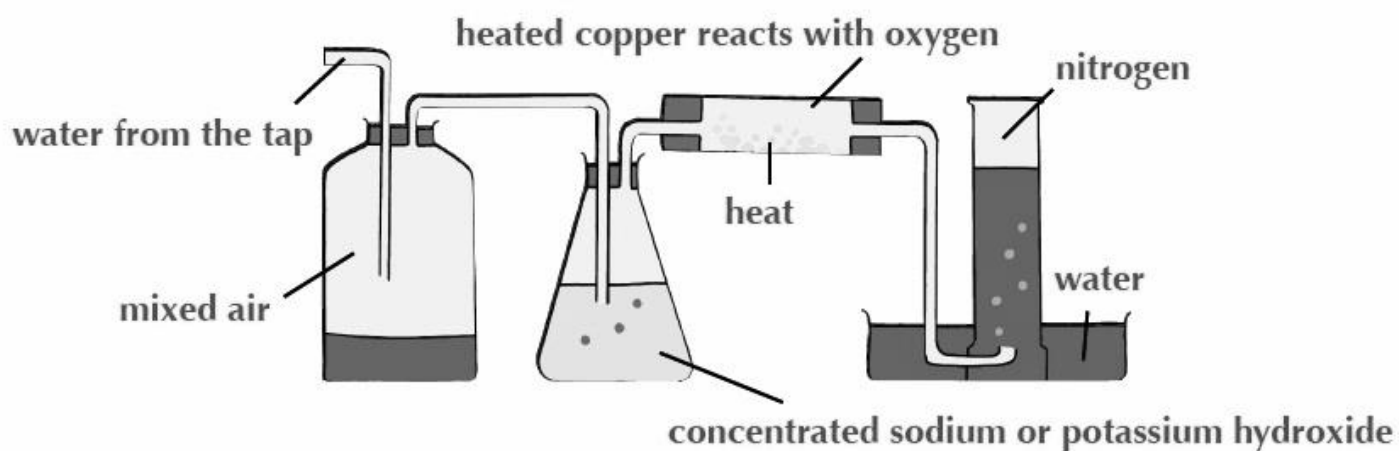
- a Hip joint has a limited movement.
- b The front arm muscle relaxes and the back arm muscle contracts.

**How can you maintain your locomotory system?**

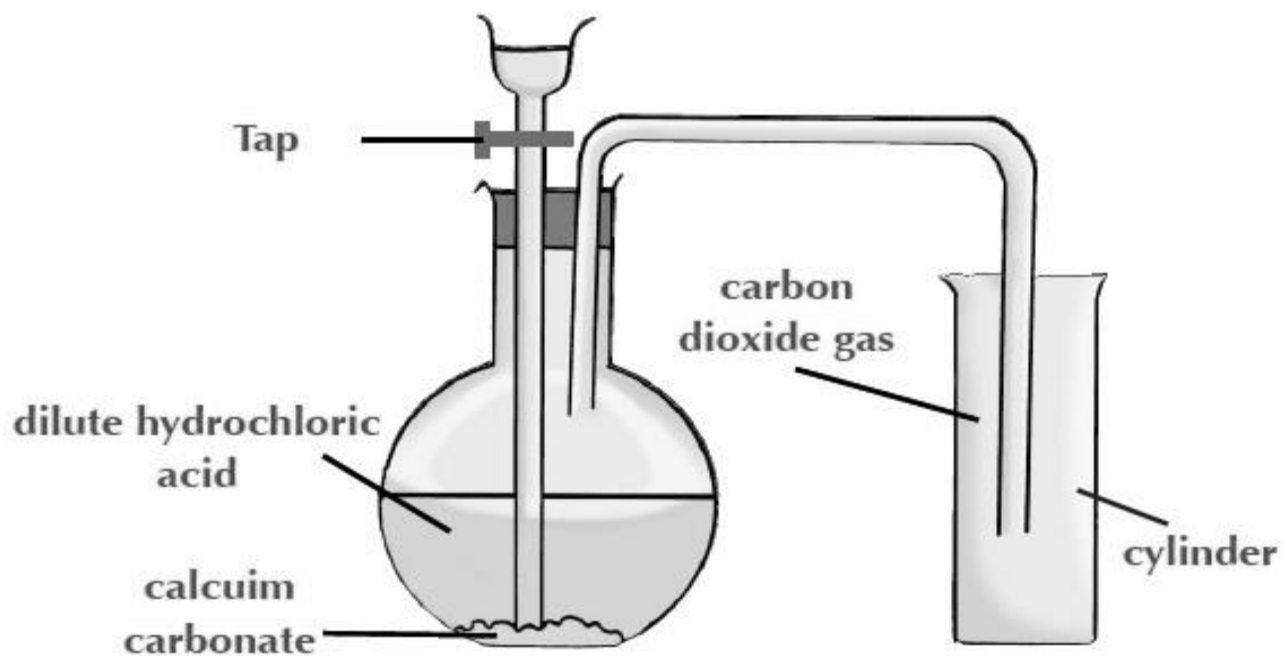
**Rewrite the following statements after correcting the underlined words:**

- a The skeleton of lower limb consists of humerus bone, 2 fore arm bones and bones of the hand.
- b Knee joint is a freely movable joint.
- c Shoulder joint is an immovable joint.
- d Joints link bones with muscles.
- e Tendons are the sites of bones meeting.

**Mention the name of the apparatus & the way of collection of the product giving reasons ?**







Fill in the following table:

Point of Comparison	Mass	Weight
Definition		
Unit of measurement		
Device of measurement		
Direction		
Effect of different places		



Compare between:

◆ Celsius thermometer and medical thermometer:

Points of Comparison	Celsius thermometer	Medical thermometer
Structure	.....	.....
Range of scale	.....	.....
Constriction	.....	.....
Used liquid	.....	.....
Usage	.....	.....

Points of comparison	Good conductors of heat	Bad conductors of heat
Definition		
Usage		
Examples		

Match from column (A) with the suitable term in column (B):

(A)
Newton
Mass
Kg
Weight
Spring scale

(B)
The gravitational force for an object
The measurement unit of mass
The measurement unit of weight
The amount of matter in an object

## Write the scientific term:

- 1-The materials that let heat flow through.
- 2-A device used to measure the temperature of the human body.
- 3- The area of two bones meeting.
- 4- A gas that has an alkaline effect on litmus paper.
- 5- The internal H-shaped part of the spinal cord.
- 6- A slow combination of oxygen with an element in the presence of moisture.
- 7- The liquid that is used in making the medical and Celsius thermometers.
- 8- The materials that are used in making cooking pots and utensils.
- 9- The measuring unit of weight that is almost equal to the weight of an object whose mass is 100gm.
- 10- The axis of the skeleton in the human body.
- 11- The measuring unit of mass which equals the mass of one liter of water of normal temperature.
- 12- Materials that do not let heat flow through.

- 13-the thermometer whose scale ranges from 0 c to 100 c
- 14- It is a form of energy that transfers from the higher temperature object to the lower temperature object.
- 15- The liquid that is used in sterilizing the medical thermometer.
- 16-A catalyst used in preparation of oxygen gas in laboratory.
- 17-A chemical substance formed when carbon dioxide gas passes through lime water.
- 18- The amount of matter in an object.
- 19- The degree of hotness or coldness of a body.
- 20- The gas that represents one fifth of the volume of atmosphere.
- 21- A system responsible for regulating and coordination between systems of the human body.
- 22- A device used to measure the mass of objects.
- 23- The attraction force of the earth to the body.
- 24- A flame used in cutting and welding metals.
- 25-A gas used in ammonia industry.
- 26- Ligaments tie muscles with bones.
- 27- a gas used to put out fires.
- 28- A gas molecule consists of two atoms of oxygen.
- 29- A location at which bones meet and it allows the movement.
- 30- A chemical substance that absorbs carbon dioxide gas from the air.
- 31- The method used to collect carbon dioxide gas during its preparation.
- 32- The 12 pairs of nerves emerge from the brain.
- 33- A part from the axial skeleton consists of 33 small bones.
- 34- The gas that represents 0.03% of the volume of air.
- 35- The measurement unit of weight which is almost equal to a mass 100 grams.
- 36- Automatic response of the body to different stimuli.
- 37- Part of the nervous system responsible for reflex actions.

- 38- The basic structure unit of the nervous system.
- 39- Linked to the brain through the spinal cord and is responsible for involuntary actions.
- 40- Consists of a grey matter in the form of H letter surrounded by the white matter.

### **Choose the correct answer:**

- 1-All the following from the components of central nervous system except:  
(Spinal nerve- two cerebral hemisphere-Spinal cord-medulla oblongata)
- 2-The weight of the body on earth surface 6 Newton, so its weight on moon surface equals  
(1 kgm- 1 Newton- 6 kgm.-6 Newton)
- 3-All the following from substances which are good conductors of heat except:  
(Aluminum and iron-copper and iron-Glass and wood.-Aluminum and copper)
- 4-The gas which is used with acetylene in welding metals is ..... gas.  
(Oxygen -Nitrogen-hydrogen -carbon dioxide)
- 5-When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar, the element formed is: (Oxygen- Nitrogen-hydrogen- carbon dioxide)
- 6-If the weight of a body is 20 Newton , its mass equals:  
(2 Kg-20 Kg-200 Kg- 2000 Kg)
- 7-From the measuring units of weight:  
(Gram- liter-Newton.-Kilogram)
- 8-The maximum and minimum graduation of the clinical thermometer is between:  
(35: 42 Celsius degrees-35: 45 Celsius degrees-32: 42 Celsius degrees- 32: 45 Celsius degrees)
- 9-Carbon dioxide gas is used in:  
(Steel industry - nitrogen-Ammonia industry.-Yeast industry)
- 10-Which of the following is from ..... Joints:  
(Femur- wrist-ankle-knee)
- 11-The thoracic cage in the man consists of..... Pairs of ribs.  
(10- 11-12- 13)

- 12-The part which is responsible for keeping human body balance is:  
(Two cerebral hemispheres- Cerebellum-Medulla oblongata.-Spinal cord)
- 13-The gas used to fill some types of lamps is:  
(Oxygen-Ozone-Nitrogen-Carbon dioxide)
- 15-Photosynthesis process in the plant depends on the presence of:  
(Oxygen- nitrogen-carbon dioxide-ozone)
- 16-The weight of the body is measured by ..... balance.  
(Spring- sensitive-double pans- all the previous)
- 17- The gas which turn lime water turbid is ..... gas.  
(Oxygen- Nitrogen-Carbon dioxide- Ozone)
- 18-Nitrogen is used in manufacture of:  
(Fire extinguisher- Fertilizers-Soft drink- dry ice)
- 19-Your weight on earth surface is 600 Newton so your weight on moon surface is.....  
Newton :( 6- 60-100- 10)
- 20-The centers of thinking and concentration lie in:  
(Medulla oblongata - spinal cord-cerebellum-two cerebral hemi spheres)
- 21-The weight of the body is measured by ..... balance.  
(Knee- Femur-elbow -all the previous)

### **Complete the following statement:**

- 1-From the examples of substances which are bad conductor of heat ..... and .....
- 2-The number of vertebrae of vertebral column is .....
- 3-The number of cranial nerves is ..... And the number of spinal nerves is.....
- 4-The holder of cooking pans is made of .....
- 5-The mass is measured by ..... balance and the weight is measured by .....balance.
- 6-Oxygen is prepared from ..... in presence of .....

- 7-The mass is measured by ..... Unit and the weight is measured by .....unit.
- 8-From the examples of substances which are good conductors of heat ..... and .....
- 9-The clinical thermometer is graduated from ..... to .....
- 10-Oxygen is produced from ..... process and carbon dioxide produced from .....process.
- 11-The number of nerves in human body is .....
- 12-The axial skeleton in the man consists of ....., ..... and .....
- 13-The human skeletal system consists of ..... and .....
- 14-The ..... is the measurement unit of mass whereas the ..... is the measurement unit of weight.
- 15-The ..... thermometer is used to measure the water temperature.
- 16-The temperature of oxyacetylene flame reaches .....
- 17-Hydrogen peroxide is used in the preparation of .....gas.

### **Give reasons:**

- 1-The rib cage surrounds both the heart and the lungs.
- 2-The force of the moon's gravity is lesser than the Earth's gravity.
- 3-The light bulb contains the argon gas.
- 4-The yeast is added to dough.
- 5-The infection of medulla oblongata lead to death.
- 6-Aluminum is used in manufacturing of cooking pans.
- 7-Nitrogen is used to store petroleum and some flammable materials.
- 8-Carbon dioxide gas is collected by the upward displacement of air.
- 9-the medical thermometer is damaged when it is put in boiling water.
- 10-you must expose yourself to sunlight for suitable periods.
- 11-Oxygen is collected by the downward displacement of water.

- 12-There is a constriction in the medical thermometer.
- 13-nitrogen is used in filling car tires.
- 14-There are cartilages between the vertebra of the back bone.

### **What happens when:**

- 1-The front arm muscle relaxes and the back arm muscle contracts.
- 2-The gravitational force on a body increases.
- 3- Blowing in a jar containing lime water.
- 4-The distance between an object and the center of earth increases.
- 5-You put your hand suddenly on a hot surface.
- 6-The shoulder joint becomes from the limited movable joints.
- 7- A glowing magnesium ribbon is placed in a jar containing carbon dioxide.
- 8- A nail wetted by water is exposed several days to humid air.
- 9- A man is exposing to noise continuously.

### **Mention one function for each of the following:**

- 1- Medulla oblongata:-
- 2- Ozone layer:-
- 3- Spring scale:-
- 4- Cerebellum:-
- 5- Constriction in the medical thermometer:-
- 6- The skull:-
- 7- Oxyacetylene flame:-
- 8- Mercury:-

### **How can you maintain your nervous system?**

# Model Answers

## Write the scientific term:

- 1-The materials that let heat flow through.(good conductors of heat)
- 2-A device used to measure the temperature of the human body. (medical thermometer)
- 3- The area of two bones meeting.(joint)
- 4- A gas that has an alkaline effect on litmus paper.(Ammonia gas)
- 5- The internal H-shaped part of the spinal cord.(grey matter)
- 6- A slow combination of oxygen with an element in the presence of moisture.(Oxidation)
- 7- The liquid that is used in making the medical and Celsius thermometers.(mercury)
- 8- The materials that are used in making cooking pots and utensils. (heat conductors)
- 9- The measuring unit of weight that is almost equal to the weight of an object whose mass is 100gm.(Newton)
- 10- The axis of the skeleton in the human body.(back bone)
- 11- The measuring unit of mass which equals the mass of one liter of water of normal temperature.(kilo gram)
- 12- Materials that do not let heat flow through. (heat insulators)(bad conductors of heat)
- 13-the thermometer whose scale ranges from 0 c to 100 c.(Celsius thermometer)
- 14- It is a form of energy that transfers from the higher temperature object to the lower temperature object.(heat)
- 15- The liquid that is used in sterilizing the medical thermometer.(ethyl alcohol)
- 16-A catalyst used in preparation of oxygen gas in laboratory. (manganese dioxide)
- 17-A chemical substance formed when carbon dioxide gas passes through lime water.(calcium hydroxide)
- 18- The amount of matter in an object.(mass)
- 19- The degree of hotness or coldness of a body.(temperature)
- 20- The gas that represents one fifth of the volume of atmosphere.(oxygen)
- 21- A system responsible for regulating and coordination between systems of the human body.(nervous system)
- 22- A device used to measure the mass of objects.(balance scale)
- 23- The attraction force of the earth to the body.(weight)



- 24- A flame used in cutting and welding metals. (oxy acetylene flame)
- 25- A gas used in ammonia industry. (nitrogen)
- 26- Ligaments tie muscles with bones. (tendons)
- 27- a gas used to put out fires. (carbon dioxide gas)
- 28- A gas molecule consists of three atoms of oxygen. (ozone gas)
- 29- A location at which bones meet and it allows the movement. (joint)
- 30- A chemical substance that absorbs carbon dioxide gas from the air. (sodium hydroxide) or (potassium hydroxide)
- 31- The method used to collect carbon dioxide gas during its preparation. (displacing air upward)
- 32- The 12 pairs of nerves emerge from the brain. (cranial nerves)
- 33- A part from the axial skeleton consists of 33 small bones. (back bone)
- 34- The gas that represents 0.03% of the volume of air. (carbon dioxide gas)
- 35- The measurement unit of weight which is almost equal to a mass 100 grams. (Newton)
- 36- Automatic response of the body to different stimuli. (reflex action)
- 37- Part of the nervous system responsible for reflex actions. (spinal cord)
- 38- The basic structure unit of the nervous system. (neuron) or (nerve cell)
- 39- Linked to the brain through the spinal cord and is responsible for involuntary actions. (medulla oblongata)
- 40- Consists of a grey matter in the form of H letter surrounded by the white matter. (spinal cord)

### **Choose the correct answer:**

- 1- All the following from the components of central nervous system except:  
(Spinal nerve- two cerebral hemisphere-Spinal cord-medulla oblongata)
- 2- The weight of the body on earth surface 6 Newton, so its weight on moon surface equals (1 kgm- 1 Newton- 6 kgm.-6 Newton)
- 3- All the following from substances which are good conductors of heat except:  
(Aluminum and iron-copper and iron-Glass and wood.-Aluminum and copper)
- 4- The gas which is used with acetylene in welding metals is ..... gas. (Oxygen - Nitrogen-hydrogen -carbon dioxide)

5-When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar, the element formed is: (Oxygen- Nitrogen-hydrogen- carbon)

6-If the weight of a body is 20 Newton, its mass equals: (2 Kg-20 Kg-200 Kg- 2000 Kg)

7-From the measuring units of weight: (Gram- liter-Newton.-Kilogram)

8-The maximum and minimum graduation of the clinical thermometer is between:

(35: 42 Celsius degrees-35: 45 Celsius degrees-32: 42 Celsius degrees- 32: 45 Celsius degrees)

9-Carbon dioxide gas is used in: (Steel industry - nitrogen-Ammonia industry.-Yeast industry)

10-Which of the following is from limited Joints: (Femur- wrist-ankle-knee)

11-The thoracic cage in the man consists of..... Pairs of ribs. (10- 11-12- 13)

12-The part which is responsible for keeping human body balance is:

(Two cerebral hemispheres- Cerebellum-Medulla oblongata.-Spinal cord)

13-The gas used to fill some types of lamps is: (Oxygen-Ozone-Nitrogen-Carbon dioxide)

15-Photosynthesis process in the plant depends on the presence of:

(Oxygen- nitrogen-carbon dioxide-ozone)

16-The weight of the body is measured by ..... balance.

(Spring- sensitive-double pans- all the previous)

17- The gas which turn lime water turbid is ..... gas.

(Oxygen- Nitrogen-Carbon dioxide- Ozone)

18-Nitrogen is used in manufacture of: (Fire extinguisher- Fertilizers-Soft drink- dry ice)

19-Your weight on earth surface is 600 Newton so your weight on moon surface is..... Newton :( 6- 60- 100- 10)

20-The centers of thinking and concentration lie in:

(Medulla oblongata - spinal cord-cerebellum-two cerebral hemi spheres)

## Complete the following statement:

1-From the examples of substances which are bad conductor of heat wood and Plastic.

2-The number of vertebrae of vertebral column is 33.

3-The number of cranial nerves is 12 And the number of spinal nerves is 31

4-The holder of cooking pans is made of plastic.

- 5-The mass is measured by scale balance and the weight is measured by spring balance.
- 6-Oxygen is prepared from hydrogen peroxide in presence of manganese dioxide.
- 7-The mass is measured by gram Unit and the weight is measured by newton unit.
- 8-From the examples of substances which are good conductors of heat iron and copper.
- 9-The clinical thermometer is graduated from 35 to 42.
- 10-Oxygen is produced from photosynthesis process and carbon dioxide produced from burning process.
- 11-The number of nerves in human body is 43.
- 12-The axial skeleton in the man consists of skull, back bone and rib cage.
- 13-The human skeletal system consists of axial skeleton and appendicular skeleton.
- 14-The gram is the measurement unit of mass whereas the newton is the measurement unit of weight.
- 15-The Celsius thermometer is used to measure the water temperature.
- 16-The temperature of oxyacetylene flame reaches 3500 c.
- 17-Hydrogen peroxide is used in the preparation of oxygen gas.

### **Give reasons:**

- 1-The rib cage surrounds both the heart and the lungs.

#### **To protect them**

- 2-The force of the moon's gravity is lesser than the Earth's gravity.

#### **Because the earth's mass is greater than the moon's mass.**

- 3-The light bulb contains the argon gas.

#### **Because it is inactive gas and it does not help in combustion.**

- 4-The yeast is added to dough.

#### **To produce carbon dioxide gas that makes bread more swelling and porous.**

- 5-The infection of medulla oblongata lead to death.

#### **Because it controls the involuntary movements like Heart beats and respiration process.**

- 6-Aluminum is used in manufacturing of cooking pans.

#### **Because it is good conductor of heat.**

- 7-Nitrogen is used to store petroleum and some flammable materials.

**Because it is inactive element and it does not help in combustion.**

8-Carbon dioxide gas is collected by the upward displacement of air.

**Because it easily dissolves in water.**

9-the medical thermometer is damaged when it is put in boiling water.

**Because the maximum degree of the medical thermometer is 42, while the boiling point of water is 100 c.**

10-you must expose yourself to sunlight for suitable periods.

**To get vitamin D from sunlight that is useful for bones.**

11-Oxygen is collected by the downward displacement of water.

**Because oxygen scarcely dissolves in water.**

12-There is a constriction in the medical thermometer.

**To prevent mercury from falling down quickly during reading the temperature.**

13-nitrogen is used in filling car tires.

**To keep the volume of tires constant at the change of the temperature.**

14-There are cartilages between the vertebra of the back bone.

**To prevent friction during movement.**

**What happens when:**

1-The front arm muscle relaxes and the back arm muscle contracts.

**The fore arm bones move down.**

2-The gravitational force on a body increases.

**The weight of the body increases.**

3-Blowing in a jar containing lime water.

**The lime water turns milky due to the formation of calcium hydroxide substance.**

4-The distance between an object and the center of earth increases.

**The weight of the object decreases.**

5-You put your hand suddenly on a hot surface.

**You pick up your hand quickly as rapid response by the spinal cord.**

6-The shoulder joint becomes from the limited movable joints.

**It allows the movement in one direction only**

7- A glowing magnesium ribbon is placed in a jar containing carbon dioxide.

**A black carbon is formed on the walls of the jar and the white magnesium oxide deposits at the bottom.**

8- A nail wetted by water is exposed several days to humid air.

**The nail rusts because oxidation process occurs.**

9- A man is exposing to noise continuously.

**His nervous system will be passively affected**

**Mention one function for each of the following:**

1- Medulla oblongata:- **it controls the involuntary actions like heart beats.**

2- Ozone layer:- **it protects us from the danger of ultraviolet radiations.**

3- Spring scale:- **it is used in measuring the weight of objects.**

4- Cerebellum:- **it keeps the body balance during movement.**

5- Constriction in the medical thermometer:- **it prevents mercury from returning back during recording the temperature.**

6- The skull:- **it protects the brain.**

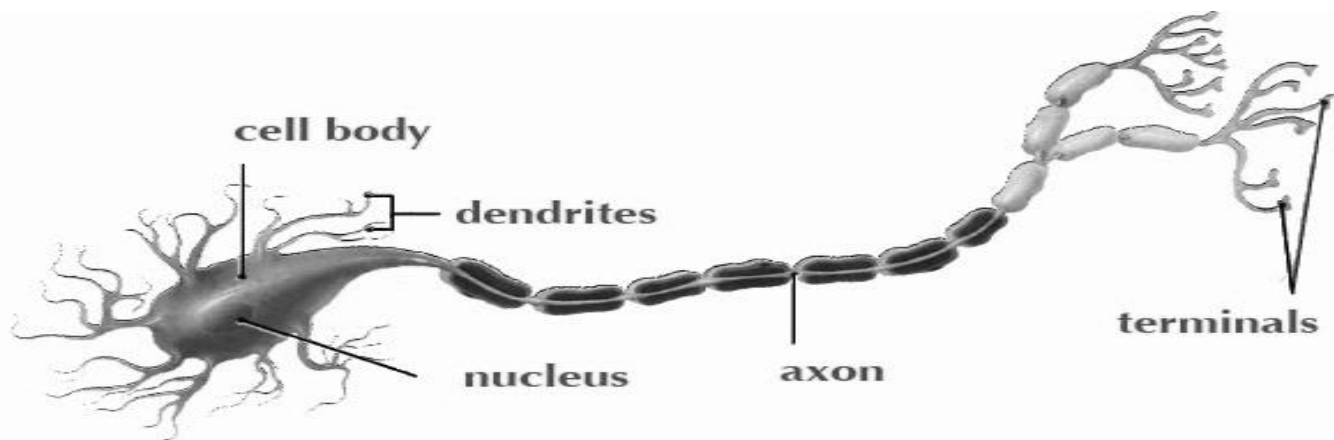
7- Oxyacetylene flame:- **it is used in cutting and welding metals.**

8- Mercury:- **it is used in making thermometers.**

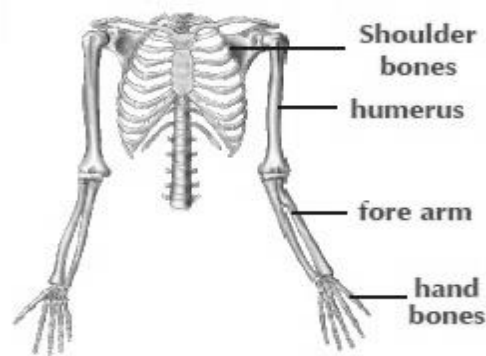
**How can you maintain your nervous system?**

- **Reducing the intake of stimulating substances like coffee.**
- **Stay away from tranquilizers and stimulants.**
- **Giving you body a sufficient period of rest especially during sleep.**
- **Avoiding extreme exciting situations.**
- **Staying away from sources of pollution and noise.**
- **Not exhausting the sensory organs by sitting for a long period in front of computer.**
- **Doing physical exercises.**

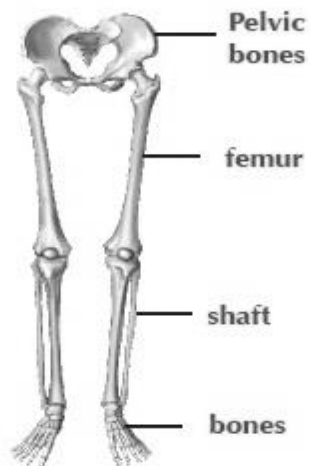
## Structure of the neuron (nerve cell)



## Structure of upper & lower limbs:

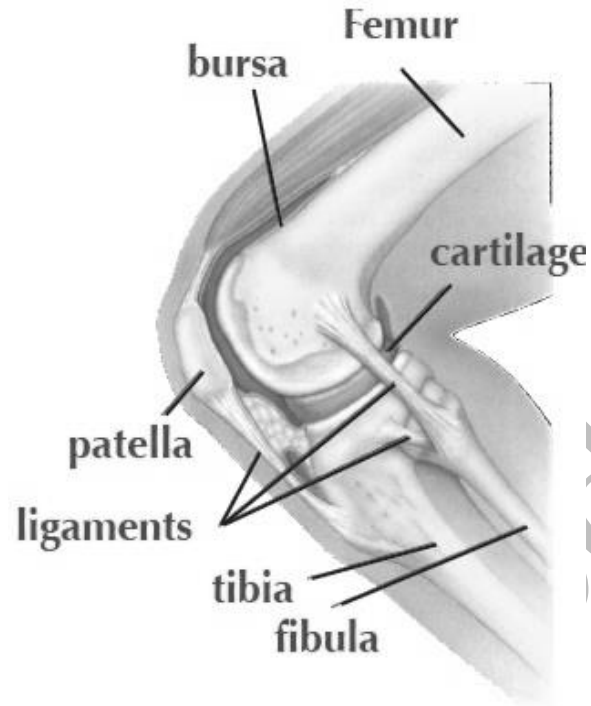


*Bones of upper limbs.*

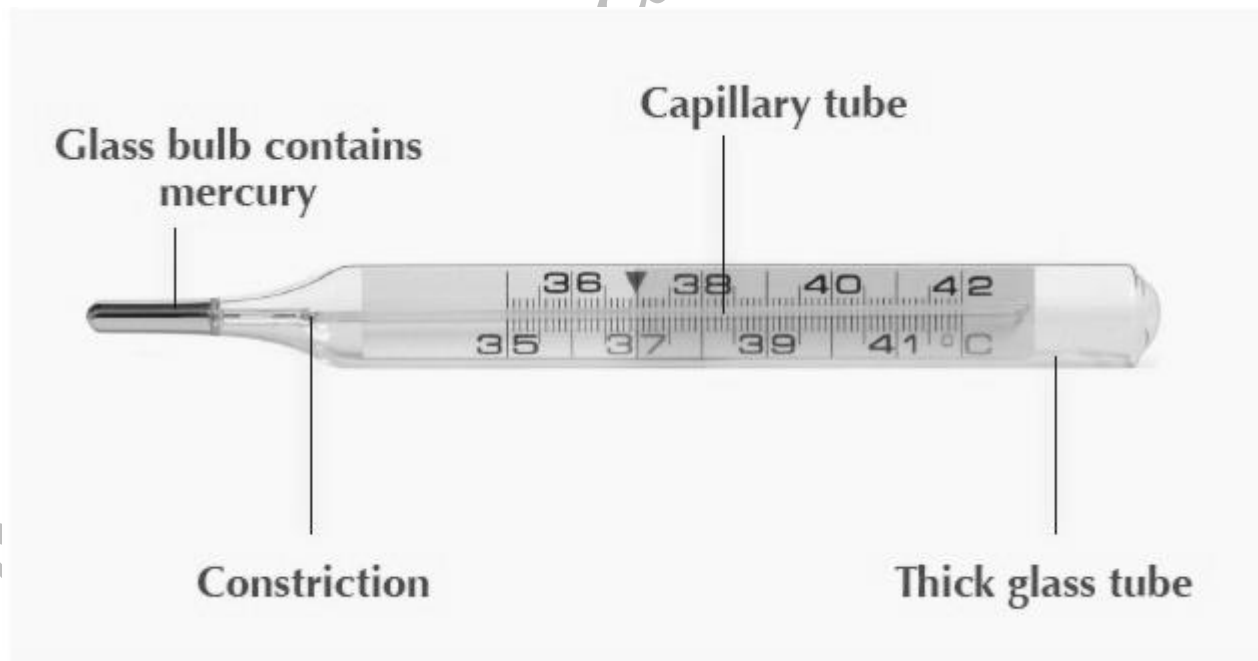


*Bones of lower limbs.*

## Structure of the knee joint :



## Structure of the medical thermometer (clinical)



تمنيتي لجميع الطلبة والطالبات دوام التفوق

**Mr. Mohamed Taha**



## Questions

### Write the scientific term:-

- 1- The amount of matter in an object. ( ..... )
- 2- The force with which the body is attracted to the earth.  
( ..... )
- 3- The measurement unit of mass which is almost equal to a mass of liter of water. ( ..... )
- 4- The measurement unit of weight which is almost equal to a mass 100 grams. ( ..... )
- 5- A device that is used to measure the mass of chemicals in lab.  
( ..... )
- 6- A device that is used to measure the weight of an object.  
( ..... )
- 7- Materials that allow heat to flow through. ( ..... )
- 8- Materials that don't allow heat to flow through. ( ..... )
- 9- A device is used to measure the temperature of human body.  
( ..... )
- 10- A device is used to measure the temperature of liquids.  
( ..... )
- 11- The liquid which is used in manufacturing of thermometers.  
( ..... )
- 12- A device is used to measure the temperature. ( ..... )
- 13- The degree of hotness or coldness of a body. ( ..... )
- 14- A window which is made by bonding 2 glass sheets & maintaining air between them. ( ..... )
- 15- The fastest metal in conducting heat. ( ..... )
- 16- Increasing the size or getting bigger of metals by heating.  
( ..... )







# Science 6<sup>th</sup> - prim

- 17- The thermometer which contains constriction. ( ..... )
- 18-A gas molecule's consist of three atoms of oxygen. ( ..... )
- 19-A flame is used in cutting and welding metals. ( ..... )
- 20-A gas in which is prepared by using hydrogen peroxide.  
( ..... )
- 21-An indicator that helps us to express the state of the body from the point of hotness and coldness. ( ..... )
- 22- The substance that remains without a change in its quantity and properties. ( ..... )
- 23- The scientist who re – discovered  $O_2$  gas. ( ..... )
- 24- The scientist who gave the Oxygen its name. ( ..... )
- 25- The rapid union between  $O_2$  and element which produces heat and light. ( ..... )
- 26- The slow union between  $O_2$  and element in the presence of moisture.  
( ..... )
- 27- The layer that consists of 3 Oxygen atoms ( $O_3$ ) and protects the Earth from harmful radiation. ( ..... )
- 28- A flame whose temperature reaches to  $3500^{\circ}C$ . ( ..... )
- 29- A gas that is used for diving and climbing. ( ..... )
- 30- It consists of two hydrogen atoms and one Oxygen atom.  
( ..... )





# Science 6<sup>th</sup> - prim

- 31- A gas that combines with  $O_2$  to produce a flame with high temperature reaches to  $3500^\circ C$ . (.....)
- 32- The gas that represents 0.03% of atmospheric volume. (.....)
- 33- A gas that is produced during burning and respiration of living organisms. (.....)
- 34- The chemical substance that is used to detect (test) the presence of  $CO_2$  gas. (.....)
- 35- The chemical substance that is added to calcium carbonate during the preparation of  $CO_2$  gas. (.....)
- 36- The gas that doesn't burn and doesn't help in burning and is used in making fire extinguishers. (.....)
- 37- A gas that is used in making soft drinks and bread. (.....)
- 38- A gas that contributes in the composition of proteins and the tissues of living organisms. (.....)
- 39- The scientist who discovered  $N_2$  gas. (.....)
- 40- A gas is used in filling car tires and some lamps. (.....)
- 41- A gas is called silent killer. (.....)
- 42- A system that consists of the brain, the spinal cord and nerves. (.....)
- 43- It contains a nucleus, cytoplasm and plasma membrane. (.....)





# Science 6<sup>th</sup> - prim

- 44- They are branches extending from the neuron's body. (.....)
- 45- The connection between the dendrites (.....)
- 46- It is a cylindrical axis covered with a fatty layer and is called myelin sheath. (.....)
- 47- They are nerve endings connect to muscles or form a synapse with other neurons. (.....)
- 48- It consists of the brain and spinal cord. (.....)
- 49- The main control center in your body that directs and coordinates all the processes, ideas, behaviors and emotions. (.....)
- 50- It is a bony box in which the brain is located. (.....)
- 51- It is a nerve block containing millions of nerve cells. (.....)
- 52- It consists of cerebrum, cerebellum and medulla oblongata. (.....)
- 53- It is the outer surface of cerebral hemispheres that has a grey color. (.....)
- 54- It contains the centers of thinking and memory and controlling the voluntary movement of the body. (.....)
- 55- It lies at the back area of the brain below two hemispheres. (.....)
- 56- It is maintaining the balance of the body during movement. (.....)
- 57- Linked to the brain through the spinal cord and is responsible for involuntary actions. (.....)
- 58- Consists of a grey matter in the form of H letter surrounded by the white matter. (.....)





# Science 6<sup>th</sup> - prim

- 59- Part of the nervous system is responsible for reflex actions.  
(.....)
- 60- It is the nerves which emerge from the central nervous system.  
(.....)
- 61- They are 12 pairs of nerves which emerge from the brain.  
(.....)
- 62- They are 31 pairs of nerves emerge from the spinal cord.  
(.....)
- 63- Automatic response of the body to different stimuli.  
(.....)
- 64- The basic structure unit of the nervous system. (.....)
- 65- It is the ability of the organism to change its position.  
(.....)
- 66- It consists of skeletal and muscular systems. (.....)
- 67- It consists of the skull, Backbone and rib cage. (.....)
- 68- It is a part of the axial skeleton that consists of 33 vertebrae with cartilages between them. (.....)
- 69- It consists of 12 pairs of ribs. (.....)
- 70- It consists of the bones of upper and lower limbs.  
(.....)
- 71- The joints that are between the bones of the skull that don't allow any movement.  
(.....)
- 72- The joints that allow the movement in one direction.  
(.....)
- 73- The joints that allow movement in all directions. (.....)





# Science 6<sup>th</sup> - prim

## **Problem (1):-**

If an object's mass on earth = 30 kg

Calculate:-

- 1- It's mass on Moon.
- 2- It's weight on earth.
- 3- It's weight on Moon.

## **Problem (2):-**

If your weight on earth = 600 Newton. Calculate your weight on the moon.

## **Problem (3):-**

If an object's weight = 20 Newton. Calculate it's mass.

## **Problem (4):-**

If an object's mass = 200 gm. Calculate it's weight on both earth and moon surfaces.

## **Complete the following sentences:-**

- 1- Mass is measured by using ..... , where as weight is measured by using .....
- 2- If the weight of iron ball is 200 Newton, so it's mass equals ...
- 3- The measuring unit of mass is ..... or ..... where as the measuring unit of weight is .....
- 4- The .....decreases when the distance between an object & the center of the earth increases.
- 5- .....is the force by which a body is attracted to the earth.
- 6- The object's weight depends on ..... , ..... & .....







# Science 6<sup>th</sup> - prim

- 7- Mass is a constant value & not affected by .....
- 8- ..... is the amount of matter in an object.
- 9- .....is the measuring unit of mass & equals to the mass of one paper clip.
- 10- .....is the measuring unit of mass & equals to the mass of one liter of water.
- 11- Newton is the measuring unit of weight which equals .....grams.
- 12- ..... & .....are examples of good conductors of heat.
- 13- ..... , ..... & .....are bad conductors of heat.
- 14- We use .....to sterilize the medical thermometer before using.
- 15- Celsius thermometer is used in measuring ....., whereas the medical thermometer is used in measuring .....
- 16- ..... & .....are used in making handles of cooking pans.
- 17- ..... & .....are some usages of good conductors of heat.
- 18- The scale of ..... thermometer starts at 35°C and ends at 42°C, while the scale of Celsius thermometer starts at ..... & ends at .....
- 19- The .....thermometer is used to measure the water temperature.
- 20- .....conducts heat faster than Aluminum.
- 21- Each degree in the medical thermometer is divided into .....parts so each part equals .....degree.
- 22- Air is .....conductor of heat.
- 23- Materials that let heat flow through are called .....
- 24- Heat is a form of ..... , that transfers from the body of .....temperature to the body of .....temperature.





# Science 6<sup>th</sup> - prim

- 25- The devices that are used to measure temperature are called .....
- 26- Materials that don't let heat flow through are called .....
- 27- The scientific principle that is used in making thermometer is that liquids .....by heating & .....by cooling.
- 28- Freezing point of water is ..... , while its boiling point is .....
- 29- There is a constriction in .....thermometer.
- 30- The temperature of a healthy human body is .....
- 31-Heat is used in industry and preparing of.....
- 32-Oxygen gas is produced plentifully from .....  
during.....process
- 33-From uses of oxygen gas are.....and.....
- 34- Oxygen gas of the atmosphere is consumed during.....  
and.....processes.
- 35- Respiration and combustion processes consume .....gas and  
produce .....gas.
- 36- By adding hydrochloric acid to calcium carbonate .....gas is  
obtained which can be used in .....
- 37- Medulla oblongata is responsible for .....,  
While .....is responsible for keeping the body balance.
38. When a glowing magnesium ribbon is placed in a jar contains  
.....gas then adding drops of water ammonia gas is evolved.
39. The human skeletal system consists of .....and .....
- 40- The axial skeleton in the man consists of ..... , ..... and  
.....
- 41- The number of nerves in human body is .....





# Science 6<sup>th</sup> - prim

42. The thoracic cage in the man consists of .....of ribs, while the back bone consists of .....vertebrae.
- 43-The gas which is used to fill some types of lamps is ....., while .....is mainly used in photosynthesis process.
- 44- The number of cranial nerves is ..... and the number of spinal nerves is .....pair.
- 45- Nitrogen is used in the manufacture of .....and .....
- 46- ..... from immovable joints, while ..... from freely movable joints.
- 47- The upper limbs consists of ....., ..... and .....
- 48- The lower limbs consists of ....., ..... and .....
- 49- Locomotary system consists of ..... & .....
- 50- Skeletal system consists of ..... & .....
- 51- Types of joints are ....., ..... & .....
- 52- ..... & ..... are from voluntary muscles.
- 53- ..... & ..... are from involuntary muscles.
- 54- ..... exist between 2 bones, while .....connect muscles with bones.

## **Give reason for:-**

- 1- The weight of an object is affected by its mass.
- 2- There is a relation between mass & motion.
- 3- The weight of a person on the earth is larger than its weight on moon.
- 4- An object's weight is affected by the distance being away from the center of the earth.
- 5- The moon's gravity is less than earth's gravity.
- 6-Double glassed windows are used in cold countries.
- 7- Cooking pots are made of aluminium.







# Science 6<sup>th</sup> - prim

- 8- We wear wool clothes in winter.
- 9- Spaces are left between railways.
- 10-Mercury is preferred in manufacturing of thermometers.
- 11-The balance scale must be on horizontal stable surface.
- 12-The wire of spring balance expands when a body is hanged to it
- 13-The weight of the body on earth differs from its weight on another planet.
- 14-The copper conducts heat faster than aluminum.
- 15-In clinical thermometer, there is a constriction above mercury reservoir (bulb).
- 16- The ratio of oxygen is constant in air.
- 17-Ozone gas is very important in nature.
- 18-Oxygen gas does not change the color of red and blue litmus paper.
- 19-Manganese dioxide still without change in quantity and properties during preparation of oxygen.
- 20-Oxygen cylinders are used during mountain climbing.
- 21-Oxygen is collected by down displacement of water.
- 22- The medical thermometer must be put in ethyl alcohol before using.
- 23- We must shake the medical thermometer well before using.
- 24- We can't measure the temperature of objects by touching.
- 25- Mercury gives a wide range to measure the temperature.
- 26-The atmosphere has a great importance for the continuity of life.
- 27- The color of litmus paper doesn't change with O<sub>2</sub> gas.
- 28- Bridges which are made of iron are painted.
- 29- The mass of a piece of cleansing wire increases after burning.
- 30- Mountain climbers carry Oxygen Cylinders.
- 31- Using acetylene flame in cutting metals.





# Science 6<sup>th</sup> - prim



- 32- Ozone layer has a great importance.
- 33- The atmosphere has a great importance for the continuity of life.
- 34- Clear lime water is used to detect the presence of  $\text{CO}_2$  gas.
- 35-  $\text{CO}_2$  gas is used in extinguishing fires.
- 36- Yeast is added to the dough in making bread.
- 37- The environment suffers from the increase of  $\text{CO}_2$  gas.
- 38-  $\text{CO}_2$  gas has a great importance for continuity of life.
- 39- The increase of  $\text{CO}_2$  gas amount is harmful.
- 40- Drinking too much of soda water is unhealthy.
- 41-  $\text{CO}_2$  gas is called silent killer.
- 42- Nitrogen is used in filling car tires.
- 43- The main source of  $\text{N}_2$  gas is the air.
- 44- We prepare  $\text{N}_2$  gas by passing air across the sodium hydroxide or potassium hydroxide.
- 45- We prepare  $\text{N}_2$  gas by passing air across hot copper wire.
- 46- Nitrogen contributes in the composition of all living tissues.
- 47- Nitrogen is used to store petroleum.
- 48- Damage of the medulla oblongata causes death.
- 49- The brain is located inside the skull & the spinal cord extends through the inside of back bone.
- 50- Withdrawal of the hand quickly when it touches a hot surface.
- 51- Muscles play an important role in human movement.
- 52- Backbone consists of 33 vertebrae with cartilages between them.
- 53- The presence of brain inside the skull.
- 54- The presence of spinal cord inside the backbone.
- 55- Ribcage is very important for human body.
- 56- The upper limbs are very important.





# Science 6<sup>th</sup> - prim

- 57- Lower limbs are very important.
- 58- Skull joints are from immovable joints.
- 59- Knee joints are from slightly (limited) movable joints.
- 60- Wrist & thigh joints are from freely (wide) movable joints.
- 61- Muscular system is considered the engine of our body.
- 62- Eating healthy food rich in calcium, phosphorus & vitamin.
- 63- Avoid doing violent movement.
- 64- Avoid carrying heavy things.
- 65- Sitting & standing correctly during studying.
- 66- Exposing the body to sunlight for suitable periods.

## **Correct the underline words:-**

- 1- Weight is the amount of matter in an object.
- 2- All matters have weight whatever their shapes, their place or their physical states.
- 3- The mass of a piece of stone on the earth's surface is smaller than its mass on the moon's surface.
- 4- Gram is the only unit for measuring mass.
- 5- Kilogram equals the mass of one paper clip.
- 6- Gram is used to measure very big masses.
- 7- Ton is suitable for measuring mass of jewellery, while gram is suitable for measuring mass of vegetables.
- 8- Sensitive two arm scale is used to measure big masses as vegetables.
- 9- The reason of object's falling downward earth is mass.
- 10- Mass is the gravitational force by which a body is attracted to the earth.
- 11- The effect of weight is directed towards the upper of the earth.





# Science 6<sup>th</sup> - prim

- 12- On the earth, there is weightlessness, but in space objects have weight.
- 13- Newton is the measuring unit of mass.
- 14- Gram equals the weight of an object whose mass is 100 grams.
- 15- When the mass of two big oranges equals 500 grams, so their weight equals 6Newton.
- 16- The weight of any object can be measured by the balance scale.
- 17- The extension of the wire of the spring scale equals the mass of the hanged object on it.
- 18- By increasing the mass of the piece of stone, its weight decreases.
- 19- Weight is inversely proportional to mass.
- 20- Mass = weight  $\times 10$
- 21- When the mass of a toy car equals 1 kilogram, so its weight equals 300 Newton.
- 22- When the weight of a chair on earth's surface is 12 Newton, so its weight on the moon's surface is 6 Newton.
- 23- When the distance between an object and the center of its planet increases, its weight increases, as the gravitational force increases.
- 24- Heat is a form of energy that transfers from the object of lower temperature to the higher one.
- 25- People wear heavy clothes in winter to decrease their feeling with heat.
- 26- All materials are good conductors of heat.
- 27- Touching a cup of hot water causes the transfer of heat from your hand to the cup.
- 28- The measuring devices of temperature are scales.
- 29- The degree of hotness or coldness is heat.





# Science 6<sup>th</sup> - prim

- 30- Copper, iron and air allow heat to transfer through.
- 31- Air is a good heat of conductor.
- 32- Plastic, paper and wood are good conductors of heat.
- 33- Copper is bad conductor of heat.
- 34- Aluminium is a poor conductor of heat.
- 35- Water is used in the manufacturing of insulating glass windows as it's an insulator.
- 36- Materials that conduct heat are called heat insulators.
- 37- All materials have the same ability to conduct heat.
- 38- Aluminium conducts heat faster than copper.
- 39- Cooking pots are made of wood.
- 40- Handles of cooking pots are made of copper.
- 41- Wood is a good conductor of heat.
- 42- Good conductors of heat are used in making heavy blankets and woolen clothes.
- 43- We can measure the temperature accurately by touching.
- 44- The idea of making thermometer depends on the expansion and contraction of solids by changing the temperature.
- 45- The medical thermometer has a capillary tube to prevent mercury from going back to the mercury bulb.
- 46- The scale of medical thermometer starts from 0°C to 100°C.
- 47- Each degree in the medical thermometer is divided into 3 parts.
- 48- you shouldn't sterilize the medical thermometer before using.







# Science 6<sup>th</sup> - prim

49- The Celsius thermometer is used for measuring the temperature of human being.

50- You must not touch a broken thermometer because mercury is hot.

51- The normal temperature of the healthy person is 35°C.

52- The melting point of ice is 100°C.

53- The molecule of ozone gas consists of four oxygen atoms.

54- Nitrogen peroxide gas is decomposed to water and nitrogen in the presence of manganese dioxide.

55- The joints of the skull are from limited movement.

56- Carbon dioxide is from the component of explosives.

57- Nitrogen gas is used in putting off fires.

58- A black precipitate is formed when  $\text{CO}_2$  gas is passed in lime water.

59- The nodular bacteria fix air Oxygen in the roots of legumes plants.

60- Nitrogen is characterized by easily dissolving in water.

61- Oxygen is called azote which means lifeless gas.



## Comparison between Celsius and medical thermometers:

Point of comparison	Celsius thermometer	Medical thermometer
1- Structure	..... ..... .....	..... ..... .....
2- Range of scale	From ..... to .....	From ..... to .....
3- The used liquid	.....	.....
4- Constriction	.....	.....
5- Usage	.....	.....

## Join from column (A) what is suitable from column (B)

(A)	(B)
1. Gram	a-is measuring unit of weight.
2. Kilo gram	b-is measuring unit of temperature
3. Newton	c- is measuring unit of heavy mass.
4. Celsius	d-is measuring unit of light mass.
	e-measuring unit of volume.

## Choose the correct answer:

- The device of measuring weight is.....  
a) one arm scale    b) two arm scale    c) digital scale    d) spring scale
- An object whose weight is 20 Newton on earth, its mass is equal to.....  
a) 2kg                      b) 10kg                      c) 20kg                      d) 200





# Science 6<sup>th</sup> - prim

3. The weight of a body its mass 200 gm on earth surface nearly equals .....  
a) 2 Newton      b) 20 Newton      c) 200 Newton      d) 2000 Newton
4. The mass of a body on the moon surface is 10 kg, so its mass on earth surface equals....  
a) 10 kg      b) 10 Newton      c) 60kg      d) 60 Newton
5. From the tools of measuring weight is .....  
a) kilogram      b) double pans balance      c) Newton      d) spring scale
6. The Newton is nearly equals weight of a body its mass is.....  
a) 1 gm      b) 10gms      c) 100gms      d) 1000gms
7. The mass of half liter of water equals .....  
a) 5gms      b) 50gms      c) 500gms      d) 500 gms
8. Which of the following is faster in conducting heat?.....  
a) aluminium      b) copper      c) iron      d) glass
9. The weight of a person in a balloon in a certain height from the earth surface equals 70 Newton, what is the weight of the person on earth surface.....  
a) 68 Newton      b) 69 Newton      c) 70 Newton      d) 71 Newton
10. From the substances which are bad conductors of heat are.....  
a) iron & aluminium      b) copper & glass  
c) glass & wood      d) aluminium & copper
11. The operation of thermometer depends on the idea of.....  
a) the change of gases volume with the change in temperature.  
b) the change of liquids volume with the change in temperature.  
c) the change of gases mass with the change in temperature.  
d) the change of liquids mass with the change in temperature.







# Science 6<sup>th</sup> - prim

12. The clinical thermometer is different from the Celsius thermometer in.....
- The type of matter presents in the reservoir.
  - The presence of constriction in the capillary tube.
  - The type of matter used in manufacturing .
  - The effect of change temperature on the present liquid volume.
13. All the following from the properties of mercury as thermometric substance except....
- good conductor of heat.
  - the expansion is regular
  - give limited extent to measure the temperature.
  - not adhere to the walls of capillary tube.
14. Which of the following gases have great percentage in the atmospheric air?  
.....
- oxygen
  - nitrogen
  - carbon dioxide
  - water vapor
15. Oxygen presents in the atmosphere in gaseous state in form of molecules structure.....
- O
  - O<sub>2</sub>
  - O<sub>3</sub>
  - O<sub>4</sub>
16. Respiration & combustion processes consume..... gas.
- oxygen
  - nitrogen
  - carbon dioxide
  - argon
17. Hydrogen peroxide decomposes in presence of manganese dioxide to.....
- oxygen & hydrogen
  - oxygen & water
  - hydrogen & water
  - hydrogen & manganese
18. A gas which is used with acetylene in welding metals is.....
- oxygen
  - nitrogen
  - carbon dioxide
  - hydrogen
19. The maximum and minimum graduation of the clinical thermometer is between:.....
- 35: 42 °C
  - 35: 45 °C
  - 32:42 °C
  - 32: 45 °C
20. The planet on which the body weight equals 6 times as its weight on the moon is.....
- mars
  - earth
  - Jupiter





# Science 6 th - prim

21. The weight (Newton) = The mass (kilogram) x .....

- a) 10                      b) 100                      c) 1000

22. If the body weight on earth surface equals 6 Newton, its weight on moon surface equals.

- a) 1/2                      b) 1                      c) 6                      d) 1/6

## **Put (✓) or (x) and correct the false one**

1-All materials are good conductor of heat                      (   )

.....

2-Copper is a good conductor of heat                      (   )

.....

3-Cooking pots are made of wood.                      (   )

.....

4-Handles of cooking pots are made of copper. (   )

.....

5-Aluminium is a poor conductor of heat                      (   )

.....

6-The Celsius thermometer is used for measuring temperature of human.

(   )

.....

7-The scale of medical thermometer starts from zero until 100 Celsius degree.

(   )

.....

8-The medical thermometer is used for measuring temperature of liquids

(   )

9- There is a constriction above the bulb in Celsius thermometer

.....

(   )





# Science 6 th - prim

10-The used liquid in the medical thermometer is mercury ( )

.....

11- The scale of Celsius thermometer starts from 35 until 42 Celsius degree

( )

.....

12- Wood is a good conductor of heat ( )

.....

13-Heat transfers from a cold object to a hot object ( )

.....

14-The mass of a body changes as its location changes ( )

.....

15-The digital balance is used in measuring weight ( )

.....

16- Aluminium conducts heat faster than copper. ( )

.....

17-one liter of water is equivalent to 1 kg. ( )

.....

18-Nitrogen gas represents 21% of the volume of the atmosphere.

( )

.....





# Science 6<sup>th</sup> - prim

## Model Answer

### Write the scientific term:-

- |                            |                                |
|----------------------------|--------------------------------|
| 1- Mass                    | 2- weight                      |
| 3) 1Kg                     | 4) 1 Newton                    |
| 5- Sensitive two-arm scale | 6- spring scale                |
| 7- Heat conductors         | 8- heat insulators             |
| 9- Medical thermometer     | 10- Celsius thermometer        |
| 11- Mercury                | 12- thermometer                |
| 13- temperature            | 14- double glazed window       |
| 15- Copper                 | 16- Expansion                  |
| 17- Medical thermometer    |                                |
| 18- Ozone gas              | 19- oxyacetylene               |
| 20- oxygen                 | 21- thermometer                |
| 22-[catalyst]              | 23-[Joseph Priestley]          |
| 24-[Antoine Lavoisier]     | 25-[combustion]                |
| 26-[Oxidation]             | 27-[Ozone layer]               |
| 28-[Oxy – acetylene]       | 29-[O <sub>2</sub> gas]        |
| 30-[water]                 | 31-[Acetylene gas]             |
| 32-[Carbon dioxide gas]    | 33-[CO <sub>2</sub> gas]       |
| 34-[lime water]            | 35-[diluted hydrochloric acid] |
| 36-[CO <sub>2</sub> gas]   | 37-[CO <sub>2</sub> gas]       |
| 38-[N <sub>2</sub> gas]    | 39-[Daniel Rutherford]         |
| 40-[N <sub>2</sub> gas]    |                                |
| 41-[CO <sub>2</sub> gas]   | 42-[Nervous system]            |
| 43-[Cell body]             | 44-[Dendrites]                 |
| 45-[synapses]              | 46-[The axon]                  |





# Science 6 th - prim

47-[Axon terminals]

48-[Central nervous system] 49-[The brain]

50-[The skull] 51-[The brain]

52-[the brain] 53-[cerebral cortex]

54-[cerebral hemispheres] 55-[Cerebellum]

56- [Cerebellum] 57-[The medulla oblongata]

58-[spinal cord] 59-[spinal cord]

60-[The peripheral nervous system]

61-[Cranial nerves] 62-[spinal nerves]

63-reflex action 64- [neuron]

65-[Movement]

66-[Locomotor system] 67-[the axial skeleton]

68-[Backbone] 69-[The rib cage]

70-[Appendicular skeleton] 71-[Immovable joints]

72-[Slightly movable joints] 73-[Freely movable joints]

## Solution(1):-

1- The mass on moon = the mass on earth = 30 kg

2- The weight on earth = mass (kg)  $\times$  10

$$= 30 \times 10 = 300 \text{ newton}$$

3- The weight on moon = the weight on earth  $\times \frac{1}{6}$

$$= 300 \times \frac{1}{6} = 50 \text{ newton}$$





# Science 6 th - prim

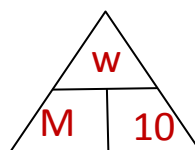
## Solution(2):-

$$\begin{aligned}\text{Weight on moon} &= \frac{1}{6} \text{ weight on earth} \\ &= \frac{1}{6} \times 600 = 100 \text{ Newton}\end{aligned}$$

## Solution(3):-

$$\text{Weight} = \text{mass (kg)} \times 10$$

$$\text{Mass} = \frac{\text{weight}}{10} = \frac{20}{10} = 2 \text{ kg}$$



## Solution(4):-

$$\text{Mass (gm)} = 200 \text{ gm}$$

$$\text{Mass (kg)} = \frac{200}{1000} = 0.2 \text{ kg}$$

$$\begin{aligned}\text{Weight on earth} &= \text{mass (kg)} \times 10 \\ &= 0.2 \times 10 = 2 \text{ newton}\end{aligned}$$

$$\begin{aligned}\text{Weight on moon} &= \text{weight on earth} \times \frac{1}{6} \\ &= 2 \times \frac{1}{6} = 0.33 \text{ newton}\end{aligned}$$

## Complete:-

- |  |                        |
|--|------------------------|
| 1- balance scale ‘ spring scale  | 2- 20 kg               |
| 3- Kilogram ‘ gram ‘ newton  | 4- weight              |
| 5- weight  |                        |
| 6- Mass ‘ planet where the object exist ‘ distance from the center of the earth. |                        |
| 7- place   | 8- mass                |
| 9- gram  | 10) 1 kilogram         |
| 11- 100  | 12- copper ‘ Aluminium |
| 13- wood ‘ plastic ‘ rubber  | 14- alcohol            |







# Science 6<sup>th</sup> - prim



15- temperature of liquids ‘ the body temperature

16- wood ‘ plastic

17- making cooking pans ‘ tea boilers

18- Medical ‘ 0°C ‘ 100°C

19- Celsius

20- copper

21- 10 - 1

22- bad

23- good conductors of heat

24- energy ‘ higher ‘ lower

25- thermometers

26- bad conductors of heat

27- expand ‘ contract

28- 0°C ‘ 100°C

29- Medical (clinical)

30- 37°C

31- food

32- Plants – photosynthesis

33- respiration – diving

34- respiration combustion

35- O<sub>2</sub> - CO<sub>2</sub>

36- CO<sub>2</sub> - extinguishing fires

37- involuntary process controlling - cerebellum

38- N<sub>2</sub>

39- axial skeleton - appendicular

40- skull , backbone -ribcage

41- (43 pairs)

42 – (12 pairs – 33)

43- N<sub>2</sub> - Co<sub>2</sub>

44- (12 pairs – 31)

45- gunpowder - fertilizers

Mid year

(24)





# Science 6<sup>th</sup> - prim

46-Skull - wrist

47- Humerus- fore arm-hand bones

48- femur- shaft-foot bones

49-skeletal- muscular systems

50-axial- appendicular skeleton

51-immovable, slightly movable- freely movable joints

52- Face- abdominal wall muscles

53- Blood vessels- bladder muscles

54- Joints- tendons

## Give reason for:-

1- Because as mass increases the weight increases.

2- Because the more object's mass increases, the more difficult to change it's speed.

3- Because earth has greater mass & gravitational force than moon.

4- Because the gravity force decreases as the body moves away from the earth so it's weight decreases.

5- Because the mass of moon is less than that of earth & as mass of the planet increases it's gravitational force increases.

6- Because the air that between the two sheets of glass is a bad conductor of heat, which prevents leakage of heat.

7- Because aluminium is good conductor of heat.

8- To keep the body warm as they are bad conductor of heat.

9- Because by heat the railways expand & twist causing train accidents.







# Science 6<sup>th</sup> - prim

- 10- Because a- mercury doesn't stick with the capillary tube.  
b- mercury is a good conductor of heat.  
C – mercury expands by heating and contracts by cooling  
d- mercury is a liquid metal and can be seen easily.
- 11- To avoid vibration of the balance and get the reading of mass more accurate.
- 12- Because the gravitational force of the earth attracts the hanged body downward, that causes the expansion of the wire of spring scale.
- 13- because, as the mass of planet changes, the gravity changes, so the weight of the object on it changes.
- 14- because the copper allows heat to flow through it faster than the aluminum.
- 15- To prevent falling down the mercury to the mercury bulb and record the temperature.
- 16-Because the amount of oxygen which is consumed during respiration process equals to its amount which is produced by plants during photosynthesis process.
- 17- Because it forms the ozone layer that protects the earth from harmful rays of the sun.
- 18- Because the oxygen gas has a neutral effect on red or blue litmus paper.
- 19-Because the manganese dioxide is a catalyst, so its amount and properties don't change during the reaction.
- 20- Because oxygen is heavier than the air, so it allows us to breathe on mountains.
- 21-Because oxygen scarcely dissolves in water.
- 22- To sterilize it from the microbes before use it.
- 23- To force mercury goes down to the mercury bulb and measure the temperature.
- 24- Because by touching, we know only is this body hot or cold, but we didn't measure the temperature of this body.
- 25- Because mercury is still liquid from (-39 until 357 °C).
- 26- Because the atmosphere  
a- adjusts the temperature of the earth.  
b- protects earth from harmful rays of the sun.





# Science 6<sup>th</sup> - prim

- 27- Because it has neutral effect on litmus paper.
- 28- To prevent them from rusting that causes damage.
- 29- Because it reacts (combines) with  $O_2$  gas forming iron oxide.
- 30- Because  $O_2$  gas becomes lighter by rising above the earth's surface.
- 31- Because its temperature reaches  $3500^\circ C$  that is enough to melt metals.
- 32- Because it protects the earth's surface from harmful radiation.
- 33- Because :
1. It protects the earth by absorbing ultraviolet radiation comes from space.
  2. It adjusts the temperature of the earth.
  3. Solid materials in it help in condensing water vapour into rains or snow.
- 34- Because  $CO_2$  gas turbid clear lime water by forming calcium carbonate (white precipitate) that doesn't dissolve in water.
- 35- Because  $CO_2$  gas doesn't burn & doesn't help in burning.
- 36- Because yeast produce  $CO_2$  gas by fermentation that expands by heat making the bread spongy & tasty.
- 37- Due to the removal of forests.
- The burning of massive amount of fuel in industry & means of transportation engines.
- 38- Because green plants take  $CO_2$  gas to make photosynthesis process to make their food & nutrients for all living organisms.
- 39- Because the increase of  $CO_2$  gas leads to: rising the earth's temperature (global warming).
- Suffocation of living organisms.
- 40- Because it doesn't contain any nutrients except sugar & it contains large amount of  $CO_2$  gas.
- 41- Because man gets suffocated if he breathes  $CO_2$  gas which is colorless , tasteless & odorless.





# Science 6<sup>th</sup> - prim

- 42- Because its volume doesn't change by changing temperature.
- 43- Because the air contains 78 % of  $N_2$  gas from its volume
- 44- To absorb  $CO_2$  gas from the air.
- 45- To make copper combines with Oxygen in the air.
- 46- Because nitrogen is the main component of proteins that build up tissues of living organisms.
- 47- Because nitrogen is inactive element that doesn't help in burning.
- 48- Because it regulates heart beats
- it regulate the movement of respiratory system parts.
  - it regulate the movement & functions of the digestive system.
- 49- To protect the brain & the spinal cord.
- 50- Because the hot surface affects the nerve ending in the fingers resulting in nerve impulses.
- Nerve impulses are transmitted to the spinal cord.
  - Nerve impulses are transmitted from spinal cord to arm muscles that contracts & the arm withdraws a way from the hot surface.
- 51- Because muscles generate mechanical energy & movement to the body.
- 52- To prevent their friction during movement.
- 53-To protect the brain.
- 54-To protect the spinal cord.
- 55-Because it protects the lungs & heart and help in inhalation & exhalation process.
- 56-To allow eating, drinking, writing & holding things.
- 57-To allow walking, running, standing, sitting & carrying the rest of the body.





# Science 6<sup>th</sup> - prim

58-Because they don't allow any movement.

59-Because they allow movement in one direction only.

60-Because they allow movement in all directions.

61-Because muscles generate mechanical energy & movement to the body.

62-To prevent bone diseases such as steomalacia & rickets.

63-To avoid bone fractures.

64-To protect the skeleton & back bone.

65-To avoid straining the neck or back bone vertebrae.

66-To provide the body with vitamin (D).

## Correct the underline words:-

1- Mass

2- Mass

3- equal

4- Gram, kg and ton

5- Gram

6- Ton

7- Gram, kg

8- Balance scale

9- Weight

10- Weight

11- center

12- on space, on earth

13- Gram

14- Newton

15- 5 newton

16- spring scale

17- Weight

18- increases

19- directly

20- Weight, Mass

21- 10 Newton

22- 2 Newton

23- decreases, decreases

24- Higher, lower

25- cold

26- metals



- |                          |                                |
|--------------------------|--------------------------------|
| 27- The cup to your hand | 28- thermometers               |
| 29- Temperature          | 30- Aluminium                  |
| 31- bad                  | 32- bad                        |
| 33- good                 | 34- wood                       |
| 35- Air                  | 36- Heat conductors            |
| 37- different            | 38- slower                     |
| 39- Aluminium            | 40- wood                       |
| 41- Copper               | 42- bad conductors of heat     |
| 43- thermometer          | 44- liquids                    |
| 45- constriction         | 46- 35°C to 42°C               |
| 47- 10 parts             | 48- should sterilize           |
| 49- medical              | 50- toxic                      |
| 51- 37°C                 | 52- 0°C                        |
| 53- three                | 54- hydrogen peroxide – oxygen |
| 55- [immovable]          | 56- [soft drinks]              |
| 57- [CO <sub>2</sub> ]   | 58- [white]                    |
| 59- [nitrogen]           | 60- [rarely]                   |
| 61- [nitrogen]           |                                |

## Comparison:

Point of comparison	Celsius thermometer	Medical thermometer
1- Structure	(a) transparent thick glass tube. (b) Capillary tube closed from one of its ends. (c) Mercury bulb filled with mercury and connected to the other end of the Capillary tube	
2- Range of scale	From 0°C to 100°C	From 35°C to 42°C
3- Constriction	absent	present
4- The used liquid	Mercury	Mercury
5- Usage	Measuring temp of liquid	Measuring temp of human body





**Join from column (a) what is suitable from column(b)**

(a)	(b)
1. Gram (d)	a-measuring unit of weight
2. kilo gram (c)	b-measuring unit of temperature
3. Newton (a)	c- measuring unit of heavy mass
4. Celsius (b)	d- measuring unit of light mass
	e-measuring unit of volume





# Science 6 th - prim

## Choose

1. spring scale
2. 2kg
3. 2 newton
4. 10kg
5. spring scale
6. 100 gms
7. 500 gms
8. copper
9. 71 newton
10. glass & wood
11. the change of liquids volume with the change in the temperature
12. the presence of constriction in the capillary tube
13. give limited extend to measure the temperature
14. nitrogen
15.  $O_2$
16. oxygen
17. oxygen & water
18. oxygen
19. 35:42 celsius degree
20. earth
21. 10
22. 1





# Science 6 th - prim

## Put (✓) or (x)

1. (x) metals
2. (✓)
3. (x) aluminium
4. (x) wood
5. (x) good
6. (x) medical
7. (x) Celsius
8. (x) Celsius
9. (x) medical
- 10-(✓)
- 11-(x) medical
- 12-(x) bad
- 13-(x) hot to cold
- 14-(x) weight
- 15-(x) mass
- 16-(x) copper-aluminium
- 17-(✓)
- 18-(x) oxygen





Points of comparison	Mass	Weight
Definition :	The amount of matter in an object.	The gravitational force by which the body is attracted to the Earth.
Measuring unit :	Kilogram or gram or ton.	Newton.
Measuring device :	Two-arms scale and one-arm scale.	Spring scale.
The direction of its effect :	It has no effect.	Its effect is always directed towards the center of the Earth (downwards).
The effect of changing the place :	Constant. (It does not change with changing the place).	Variable (It changes with changing the place).

## The two-arms scale and the spring scale.

Point of comparison	Two-arms scale	Spring scale
Use :	It is a device that is used to measure the mass of any object.	It is a device that is used to measure the weight of any object.



## (1) Between oxidation and burning (combustion) :

Points of comparison	Oxidation	Burning (combustion)
1. Definition :	It is a slow combination (union) between oxygen and element in the presence of moisture (water).	It is a rapid combination (union) between oxygen and element producing heat and light.
2. Example :	Iron rusting.	Burning a piece of cleansing wire.

## (2) Between oxygen, carbon dioxide and nitrogen :

Points of comparison	Oxygen	Carbon dioxide	Nitrogen
1. Its ratio in air :	21%	0.03%	78%
2. Structure :	Its molecule is composed of two oxygen atoms linked together.	Its molecule is composed of one carbon atom linked with two oxygen atoms.	Its molecule is composed of two nitrogen atoms linked together.
3. Symbol :	O <sub>2</sub>	CO <sub>2</sub>	N <sub>2</sub>
4. Properties :	a. It is a colorless, tasteless and odorless gas. b. It scarcely dissolves in water. c. It doesn't burn, but helps in burning. d. It has a neutral effect on litmus paper. e. It is heavier than air, so it replaces air.	a. It is a colorless, odorless and tasteless gas. b. It easily dissolves in water, so it is not collected by displacement of water. c. It doesn't burn and doesn't help in burning so, it is used in extinguishing fires. d. It reacts with magnesium forming magnesium oxide (white powder) and carbon or coal (black substance) that deposits on the wall of the cylinder. e. It is heavier than air so, it is collected by upward displacement of air.	a. It is colorless, tasteless and odorless gas. b. It scarcely dissolves in water. c. It doesn't help in burning. d. It combines with lighted magnesium ribbon forming a white substance that reacts with water forming ammonia gas which has a pungent smell. e. It doesn't easily react with a lot of elements as it is inactive element. f. It can be condensed into a liquified state.



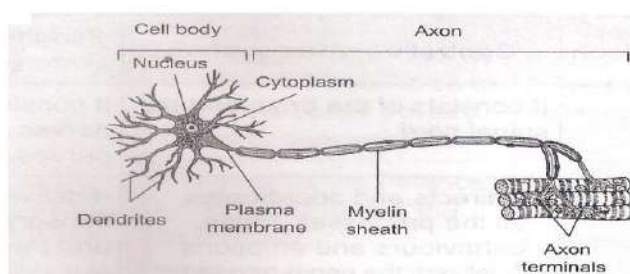


The joint / muscle	Its type
1. Skull joints.	Immovable joints.
2. Knee joint.	Slightly movable joints.
3. Elbow joint.	Slightly movable joints.
4. Shoulder joint.	Freely movable joints.
5. Thigh (hip) joint.	Freely movable joints.
6. Wrist joint.	Freely movable joints.
7. The limbs muscles.	Voluntary muscles.
8. Face muscles.	Voluntary muscles.
9. Trunk muscles.	Voluntary muscles.
10. Abdominal wall muscles.	Voluntary muscles.
11. The bladder muscles.	Involuntary muscles.
12. The blood vessels.	Involuntary muscles.
13. The gastrointestinal tract.	Involuntary muscles.

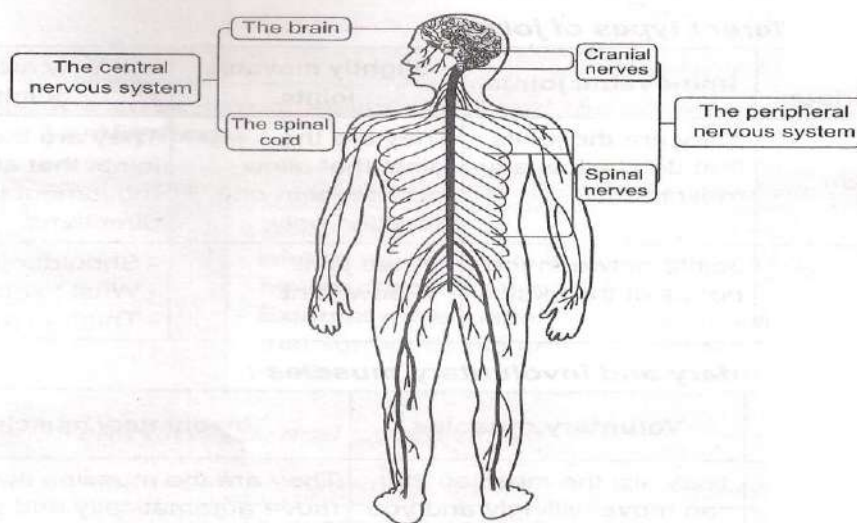
## Between the brain and the spinal cord :

Points of comparison	The brain	The spinal cord
1. Definition :	It is a nerve block containing millions of nerve cells and it is the main control center in your body.	It is a cylindrical cord from which the spinal nerves extend.
2. Location :	It is located in a bony box called skull.	It extends in a channel within a series of vertebrae in the backbone.
3. Function :	It directs and coordinates all the processes, ideas, behaviours and emotions.	<ul style="list-style-type: none"> <li>- It delivers the nerve messages from the body organs to the brain and vice versa.</li> <li>- It is responsible for the reflex action.</li> </ul>



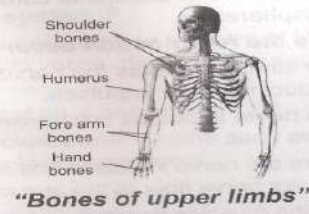
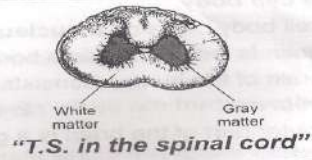
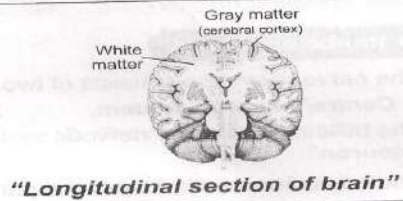
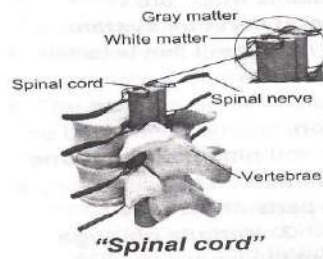
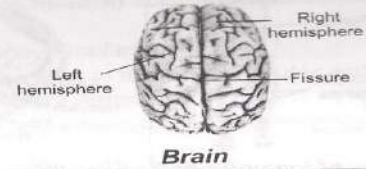
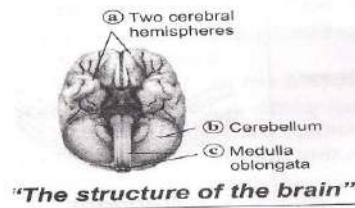


**The structure of the nerve cell (neuron)**

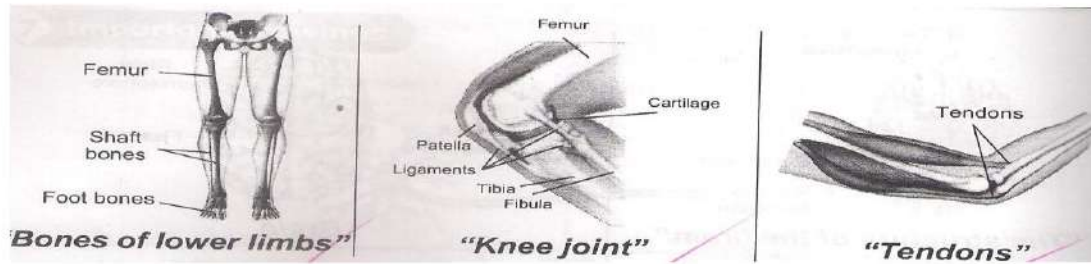


**The structure of the nervous system**









(1)

## Revision of Science for 6<sup>th</sup> primary first term

### 1 Complete the following statements

1. The brain consists of ..... and .....
2. The backbone consists of ..... vertebrae, where ..... is protected inside it.
3. The outer surface of the two hemispheres is a ..... matter, while the outer surface of the spinal cord is a ..... matter.
4. In the ribcage, there are ..... pairs of ribs are connected to the sternum.
5. The nervous system consists of two main systems which are ..... and .....
6. Oxygen is produced from ..... process, and it represents ..... % of the volume of the atmospheric air.
7. Nitrogen is used in the manufacture of ..... which doesn't rust.
8. Oxygen combines with acetylene gas to produce .....
9. When nitrogen reacts with a burning magnesium ribbon, ..... is formed which dissolves in water to produce ..... gas.
10. During preparation of oxygen, hydrogen peroxide is dissociated into ..... and .....
11. Carbon dioxide is produced during ..... and ..... processes.
12. Leaving spaces between railway bars which are made of ..... to avoid train accident as ..... is considered ..... heat conductor.
13. Handles of cooking pots and electric iron are made of ..... or .....
14. The main idea of thermometer action is changing the ..... of liquid



(2)

Complete

inside as the ... changes.

15. Mercury is used in making thermometers because it is a .... metal and .... conductor of heat.

16. .... conducts heat faster than aluminium and iron.

17. Mass is measured in gram. It is equal to the mass of .... and suitable for measuring ... masses such as ....

18. The mass of any matter is .... value and it is not affected by changing ....

19. .... is the measuring unit of weight which is almost equal to the weight of an object on ... surface whose mass is ..... gram.

20. Weight of any object = ....  $\times 10$ .

21. The weight of any object can be measured by using the...

22. The nerve cell consists of two main parts which are ... and ....

23. There are ... pairs of ribs (in the ribcage), whereas there are .... pairs of nerves come out of the spinal cord.

24. The brain is protected by ...., while the spinal cord is protected by ....

25. The gray matter in the cerebrum is called ....

26. The backbone contains .... between its .... to prevent their friction.

27. The human locomotory system consists of .... system and the muscular system.

28. Rusting of iron is due to the presence of water and .... gas, whereas .... gas is used in making stainless steel which doesn't rust.

29. Nitrogen gas reacts with .... during lightning forming ....

30. Both .... gas and .... gas are scarcely dissolve in water.



(3)

Complete

31. During preparation of nitrogen, sodium hydroxide is used to remove...., while hot copper is used to remove.... from the atmospheric air.
32. Among the gases that don't help in burning, .... gas and .... gas.
33. The degree of .... or .... of an object is known as temperature.
34. The melting point of ice is .... °C, while the boiling point of water is .... °C.
35. Cooking utensils are made up of .... or ....
36. In the .... thermometer, there is a .... above the mercury bulb.
37. Mercury remains in liquid state between .... °C and .... °C.
38. ...., .... and .... can be used to determine the mass of an object.
39. The measuring unit of weight is ...., while the measuring unit of mass is ....
40. Copper is from .... conductors of heat.
41. Carbon dioxide molecule consists of one carbon atom linked with two .... atoms.
42. Nitrogen combines with a lighted magnesium composing .... substance.
43. The weight of the body on moon's surface = .... of its weight on Earth's surface.
44. Heat is a form of the forms of ....
45. Divers use ... cylinder during diving under water.
46. The centers of thinking and memory lie in ....



(4)

Complete

- 47 - The neuron consists of the cell body and .... which ends by the presence of .....
- 48 - As the mass of the planet increases, its gravity ... and that leads to .... the weight of the object.
- 49 - Carbon dioxide is prepared in the laboratory by adding ..... to the powder of ....
- 50 - Water freezes at ... Celsius and boils at ... Celsius
- 51 - The number of cranial nerves is .... and the number of spinal nerves is ....
- 52 - Heat transfers from the .... temperature object to the .... temperature object.
- 53 - The main center of the control in your body is .... and it is found inside a bony case called ....
- 54 - Materials are classified according to conducting heat into .... and ....
- 55 - Carbon dioxide gas is converted into a liquid by ... and ...
- 56 - The rapid union between oxygen and elements produces heat and light, it is named ....., whereas if it is slow in the presence of moisture, it is named ....
- 57 - The .... controls the reflexes, while the cerebellum is responsible for ....
- 58 - The scale of medical thermometer starts from ... °C and ends at .... °C.
- 59 - The central nervous system in human consists of two main parts which are .... and ....
- 60 - During photosynthesis process in green plants ... gas is produced, while burning of organic materials produces ... gas.



(5)

Complete.

61. The device which is used to measure the temperature is ....
62. Preparation of oxygen in the laboratory from ....  
with manganese dioxide.
63. A body mass on the Earth's surface is 5 Kg, the same body mass on the moon's surface is ....
64. We must avoid jumping from high places to avoid ...  
in our locomotory system.
65. The oxygen gas is produced plentifully from .... during  
.... process.
66. Muscles are fixed to bones by ... , while ...  
are found between vertebrae of backbone to prevent  
their friction.
67. All metals are .... conductors of heat.
68. Mass is constant and does not change with the change  
of ...
69. The percentage of carbon dioxide gas in atmosphere  
equals .... it has the symbol of ...
70. The backbone consists of .... vertebrae.
71. The force of Earth's attraction to a body is called ...  
and is measured in a unit called ...
72. Plastic is a ... conductor of heat and is used in making
73. During the preparation of ... gas, hot copper combines  
with the .... found in the air.
74. The medical thermometer scale starts from ... degree  
Celsius until 42 degree Celsius and every degree is divided  
into ....
75. The human axial skeleton consists of ... , ribcage  
and ....
76. ... gas turbids Limewater because of the formation of ....  
which doesn't dissolve in water.



(6) Complete.

- 77- The ... is used in measuring the temperature of liquids, whereas the ... is used in measuring the temperature of the human body.
78. Water consists of united of one atom of ... with two ... atoms.
79. The human skeletal system consists of ... and ....
- 80- Cerebral hemispheres is the largest part of the brain, it consists of two halves separated by ... and attached to each other through ...
- 81- The main component in protein is .... which is known as ...
- 82- The movement is generated by the ability of ... cells to contract and relax.
- 83 - As the mass of the planet on which the object exists increases, the object's .... increases.
84. The number of vertebrae of vertebral column in human body is .... and the number of spinal nerves is .... pairs.
- 85- Nitrogen represents ...., while oxygen represents .... of the volume of the atmosphere.
- 86- .... gas is used in composing gunpowder, while ... gas is used in welding metals.
- 87- It's necessary to eat healthy food rich in calcium and phosphorus to prevent .... diseases.
- 88 - .... is the gas which is called azote that means "lifeless" because it does not help in burning.
- 89- The <sup>clinical</sup> medical thermometer is used to ..., whereas the celsius thermometer is used to ....
- 90- In photosynthesis process, the plant absorbs .... gas and produce .... gas.
- 91- Weight is the force by which .... to the Earth.
- 92- ..... is used for manufacturing of soil fertilizers.

(7) Complete

93 - The weight of the body on Earth's surface increases as the .... increases.

94 - The oxygen gas is consumed during ... and ... processes



(8)

### The answers.

1. Cerebrum - Cerebellum - medulla oblongata.
2. 33 - Spinal cord.
3. gray - white.
4. 10
5. the central nervous system - the peripheral nervous system.
6. photosynthesis - 21%
7. stainless steel.
8. oxy - acetylene flame.
9. white substance - ammonia.
10. Water - oxygen gas
11. respiration - combustion (burning).
12. Iron - iron - good.
13. Plastic - wood.
14. volume - temperature.
15. liquid - good.
16. Copper.
17. one paper clip - small - jewellery.
18. constant - the place of the matter.
19. Newton - The Earth's - 100.
20. Its mass.
21. Spring Scale.
22. The cell body - the axon.
23. 12 - 31.
24. the skull - the backbone.
25. cerebral cortex.
26. cartilages - vertebrae.
27. skeletal.
28. oxygen - nitrogen.
29. oxygen - nitrogen oxide.

(9)

30. oxygen - nitrogen.
31. carbon dioxide gas - oxygen gas.
32. carbon dioxide - nitrogen.
33. hotness - coldness.
34. Zero - 100.
35. wood - plastic.
36. medical - construction.
37. (-39) - 357.
38. Balance scale, sensitive scale and Digital scale.
39. Newton - Kilogram (or gram).
40. good.
41. oxygen.
42. white.
43.  $\frac{1}{6}$
44. energy.
45. oxygen.
46. cerebrum.
47. the axon - axon terminals.
48. increases - increasing.
49. dilute hydrochloric acid - calcium carbonate.
50.  $20^{\circ}$  -  $100^{\circ}$ .
51. 12 pairs - 31 pairs.
52. higher - lower.
53. the brain - skull.
54. heat conductors - heat insulators.
55. pressure - cooling.
56. burning - oxidation.
57. spinal cord - Keeping the balance of the body during movement.



(10)

- 58) 35 - 42
- 59) The brain - the spinal cord.
- 60) oxygen - carbon dioxide.
- 61) thermometer.
- 62) hydrogen peroxide.
- 63) 5 kg.
- 64) fractures.
- 65) green plants - photosynthesis.
- 66) tendons - cartilages.
- 67) good
- 68) place
- 69) 0.03% -  $\text{CO}_2$
- 70) 33
- 71) weight - Newton.
- 72) bad handles of cooking pots.
- 73) nitrogen - oxygen.
- 74) 35 - 10 parts.
- 75) skull - backbone.
- 76) carbon dioxide - calcium carbonate.
- 77) Celsius thermometer - medical thermometer.
- 78) oxygen - hydrogen.
- 79) axial skeleton - appendicular skeleton.
- 80) fissure <sup>فجوة</sup> nerve fibres <sup>ألياف عصبية</sup>
- 81) nitrogen gas - azote.
- 82) muscle
- 83) weight
- 84) 33 - 31
- 85) 78% - 21%
- 86) Nitrogen - oxygen



(11)

87. bone

88. Nitrogen

89. measure the temperature of human body - measure the temperature of liquids (water)

90. carbon dioxide - oxygen.

91. a body is attracted.

92. Nitrogen.

93. mass of body

94. respiration - burning.

## 2 Put (✓) or (X):

1. Spring scale is used to measure the mass of objects (X)
2. The weight of an object on the Earth's surface equals 6 times of its weight on the moon's surface (✓)
3. The balance scale is used to measure large weight as cheese and vegetables (X)
4. Sensitive scale is used to measure small masses as gold and chemicals. (✓)
5. Aluminium conducts heat slower than copper (✓)
6. Different metals transfer heat by the same rate (X)
7. The volume of liquids change by changing the temperature (✓)
8. Handles of cooking pots are made of heat conducting materials (X)
9. Air is used in making the insulating glass windows (✓)
10. Mercury is a regular expanding material (✓)
11. Carbon dioxide gas doesn't burn and doesn't help in burning (✓)
12. Nitrogen is called azote which means gas of life (X)



(12) Put (✓) or (X)

- 13 - Oxygen gas occupies about one fifth of the air volume (✓).
- 14 - Limewater is used to detect the presence of nitrogen gas. (X)
- 15 - The cerebellum regulates heartbeats (X)
- 16 - The outer matter of the spinal cord has the shape of letter (H). (X)
- 17 - The Central nervous system consists of cranial nerves and spinal nerves. (X)
- 18 - Oxygen gas represents 78% of the volume of the atmosphere (X)
- 19 - Cooking pots are made of plastic (X)
- 20 - Air is from good conductors of heat (X)
- 21 - Oxy-acetylene flame is used in cutting and welding metals (✓)
- 22 - Cerebellum maintains the balance of the body during movement (✓).
- 23 - The liquid used in the medical thermometer is alcohol (X)
- 24 - The shoulder joint is a freely moveable joint (✓) (X)
- 25 - Heat transfers from a cold object to a hot object (X)
- 26 - The weight is the force with which a body is attracted to the Earth (✓)
- 27 - Carbon dioxide molecule consists of one oxygen atom linked with two carbon atoms (X)
- 28 - The medical thermometer scale starts from  $32^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  (X)
- 29 - Ozone gas consists of three oxygen atoms (✓) (X)
- 30 - One kilogram equals 1000 grams which equal one litre of distilled water (✓)
- 31 - Humerus bone and forearm bones are from parts of lower limbs (X)



(13)

- 32 - Celsius thermometer is used in measuring the human body temperature (X)
- 33 - The cerebellum is responsible for keeping the body balance during movement (✓)
- 34 - Bones of the lower limbs are connected to the shoulder bones (X)
- 35 - The digital balance is used in measuring weight (X)
- 36 - The spinal cord is responsible for reflex actions in human body (✓)
- 37 - The knee joint is an immovable joint (X)
- 38 - The medulla oblongata delivers nerve messages from the body organs to the brain and vice versa (X)
- 39 - The mass of materials decreases after combination with oxygen (X)
- 40 - Nitrogen is used to make stainless steel (✓)
- 41 - Mercury is a good conductor of heat (✓)
- 42 - Ozone gas consists of two oxygen atoms and symbolized by  $O_3$  (X)
- 43 - Carbon dioxide gas is used in the manufacture of gunpowder (X)
- 44 - In legumes, the nodular bacteria fix nitrogen on their roots (✓)
- 45 - Nitrogen gas reacts easily with most other elements (X)
- 46 - Oxygen gas doesn't burn and it does not help in burning (X)
- 47 - Wrist joint is freely movable joint (✓)
- 48 - Oxygen cylinders are used during climbing mountains (✓)
- 49 - Carbon dioxide is collected by displacing water downward (X)
- 50 - During the reflex action, nerve impulses transmit through sensory nerve fibers to the spinal cord (✓)



(14)

9) Correct the underline word in the following statements.

- |  |                         |
|--|-------------------------|
| 1- <u>Weight</u> is a constant value and is not affected by changing the place.  | 1- Mass                 |
| 2- The scale of the medical thermometer starts from $35^{\circ}\text{C}$ to $100^{\circ}\text{C}$ .  | 2- $42$                 |
| 3- The axon of the nerve cell is surrounded by a <u>gelatinous</u> layer.  | 3- fatty                |
| 4- The <u>Cerebellum</u> lies at the back area of the brain <u>above</u> the two cerebral hemispheres.   | 4- below                |
| 5- <u>Hydrogen peroxide</u> remains without change in quality or properties during the preparation of oxygen gas because it is used as a catalyst. | 5- Manganese dioxide    |
| 6- The liquid that is used in making the thermometers is <u>water</u> .  | 6- Mercury              |
| 7- 12 pairs of <u>ribs</u> come out from the brain.  | 7- nerves               |
| 8- <u>Iron</u> is used in manufacturing Kettles that are used in houses and factories.   | 8- Aluminium            |
| 9- The joint of <u>shoulder</u> is one of slightly movable joints.   | 9- Knee                 |
| 10- Calcium carbonate is used in preparation of <u>nitrogen</u> gas.   | 10- Carbon dioxide      |
| 11- There is a constriction above the mercury bulb in the <u>Celsius</u> thermometer.  | 11- Medical Thermometer |
| 12- The mass of the material <u>decreases</u> after combination with oxygen.   | 13- increases           |
| 13- The <u>spinal cord</u> controls the heart beats  | 13- Medulla oblongata   |



# (15) correct the underline word

- |  |                        |
|--|------------------------|
| 14- Nitrogen is also called azote which means life gas.  | 14- lifeless gas       |
| 15- The internal substance of the spinal cord is the yellow matter.  | 15- gray               |
| 16- Argon is used in extinguishing of fires  | 16- Carbon dioxide     |
| 17- The centers of thinking and memory are located in the medulla oblongata.   | 17- Cerebrum.          |
| 18- The Earth gravitational force increases as the body moves away from the Earth.   | 18- decreases.         |
| 19- Carbon dioxide gas is used in filling car tires.   | 19- Nitrogen gas.      |
| 20- oxygen molecule consists of three oxygen atoms.  | 20- two.               |
| 21- Aluminium conducts heat faster than copper.  | 21- Iron.              |
| 22- Carbon dioxide gas reacts with clear limewater forming white precipitate of calcium hydroxide which is insoluble in water. | 22- Calcium carbonate. |
| 23- Different metals transfer heat by the same rate.   | 23- different rates.   |
| 24- Nitrogen gas is used in extinguishing fires.   | 24- Carbon dioxide     |
| 25- The molecule of ozone gas consists of four oxygen atoms.   | 25- Three.             |
| 26- Cartilages link bones with muscles.  | 26- Tendons            |
| 27- Nitrogen gas protects the Earth from harmful radiations  | 27- Ozone              |
| 28- The operation of thermometer depends on the change of the density of the liquid inside with change in temperature.         | 28- Volume             |



(16)

29 - In the human nervous <del>system</del> <u>medulla oblongata</u> is responsible for receiving nerve impulses from sense organs and sending responses to these impulses.	29. Cerebrum
30 - Carbon dioxide is prepared in the Laboratory from the reaction between hydrochloric acid and <u>copper sulphate</u>	30. Calcium Carbonate
31. <u>Muscles</u> prevent the friction between vertebrae of backbone during movement.	31. Cartilages
32 - The axon of the nerve cell is surrounded by <u>gelatinous layer</u>	32. fatty
33 - from The brain <u>10 pairs</u> of cranial nerves come out.	33 - (12) Pairs
34 - An example for the involuntary muscles is <u>the face muscles</u> .	34 - blood vessels muscles
35 - The centers of thinking and concentration lie in <u>medulla oblongata</u> .	35. Cerebrum
36 - Carbon dioxide gas is needed for <u>rusting process</u> .	36. Photosynthesis Process
37 - The handles of cooking pans made up of <u>copper</u>	37 - Plastic



(17)

④ Give reasons for :-

1. Clear Limewater becomes turbid when carbon dioxide passes in it.  
- Due to the formation of calcium carbonate which doesn't dissolve in water.
2. Oxygen cylinders are used during climbing mountains.  
- Because the ratio of oxygen gas decreases when we rise above the Earth's surface.
3. <sup>The infection</sup> Damage of the medulla oblongata causes death.  
Because medulla oblongata controls all the involuntary processes such as heartbeats.
4. Carbon dioxide is used in extinguishing some fires.  
Because carbon dioxide doesn't burn and doesn't help in burning.
5. Passing the air on the hot copper during the preparation of nitrogen in Lab.  
To remove oxygen gas from the atmospheric air by combining with it.
6. The ribcage surrounds the heart and the two Lungs.  
To protect the heart and the lungs.



(18) 

7- Using wood in making the handle of cooking pots.  
Because wood doesn't allow heat to pass through as it is bad conductor of heat.

8- Using liquids in making the thermometers.  
Because the volume of liquids change by changing the temperature as liquids expand by heating and contract by cooling.

9- There is a constriction above the mercury bulb in the medical thermometer.  
To prevent mercury from going back quickly to the mercury bulb in (order) to read the measurement easily.

10- It is necessary to eat healthy food that is rich in calcium and phosphorus.  
To prevent bone diseases such as (osteomalacia) and (ricket)

11. It is necessary to leave spaces between the railway  
To avoid train accidents, where iron is a good conductor of heat that expands and twists by heat.

12- Ozone gas is very important in nature.  
Because it protect the Earth from harmful radiation coming from the Sun.

(19) G.R

13- Aluminium and stainless steel are used in making cooking pots.

Because they are good conductors of heat.

14- Nitrogen is used to store petroleum and some flammable materials.

Because nitrogen is an inactive element.

15- Increased ratio of carbon dioxide gas in the atmosphere in recent years.

Due to removal of forests and burning large amount of fuel.

16- Presence of cartilages between the vertebrae of the backbone.

To prevent friction between bones (vertebrae) during movement.

17- Nitrogen is recently used in filling car tires.

Because it causes relative constancy of the volume of (car) tires when the temperature changes.

18- Heavy woolen clothes are used in winter

To keep our bodies warm because woolen clothes are bad conductors of heat.

19- The bridges' pillars made of iron are isolated from moisture with paints.

To protect them from rusting.



(20) G.R

20. Reducing the intake of stimulating substances such as coffee.

To keep the nervous system healthy.

21. The decrease of green areas harm the environment.  
Because this increases the percentage of carbon dioxide gas.

22. The cooking pots are made of Aluminium, while its handles are made of plastic.

Because Aluminium is a good conductor of heat,  
while plastic is a bad conductor of heat.

23. During preparation of nitrogen gas in laboratory;  
air is passed in potassium hydroxide solution  
and over a hot copper.

Because potassium hydroxide absorbs (carbon dioxide) from  
air, while the hot copper remove oxygen from the air.

24. The weight of the body differs according to the planet  
where the object exists.

Because the gravity of a planet depends on its mass,  
so the weight of any object will change from a planet  
to another.

25. oxygen is collected by downward displacement of water.  
Because oxygen scarcely dissolves in water.

(21) G.R.

26- Nitrogen is collected by the displacement of water downward during its preparation in the laboratory. Because Nitrogen scarcely dissolves in water.

27- Yeast is added to dough on making bread. Because yeast produces carbon dioxide during fermentation, that expands by heat making the bread porous and tasty.

28- Gastrointestinal tract muscles are involuntary muscles.

Because these muscles work automatically and you can't control their movement.

29- Air is used in making insulating glass windows. To prevent the leakage of heat as air is bad conductor of heat.

30- Your weight on the moon less than that on the Earth. Because the Earth has greater mass and gravitational force than the moon.

31- Mercury is preferred in making thermometers. Because it is good conductor of heat and it is a regular expanding material.



(22)

5

Write the Scientific term

1. The building unit of the nervous system	1. Neuron
2. The amount of matter in an object	2. Mass
3. The main <u>control center</u> in human body	3. The <u>brain</u>
4. Gas is used in respiration and combustion processes	4. Oxygen gas
5. Organ in the central nervous system responsible for the reflex action.	5. Spinal cord.
6. An indicator helps us to express the state of the body from point of <u>hotness</u> or <u>coldness</u>	6. Temperature
7. Long strips that fix muscles on bones	7. Tendons.
8. A force with which a body is attracted to the Earth	8. Weight.
9. A gas that its molecule is composed of three oxygen atoms.	9. Ozone gas
10. An instrument used for measuring the temperature	10. Thermometer.
11. the part responsible for keeping the body balance during movement.	11. Cerebellum
12. Locations of bones meeting that allow the movement between them	12. joints
13. A gas used in filling the planes and car tires and also contributes in composing gunpowder.	Nitrogen
14. The <u>system</u> responsible for controlling all body systems.	14. Nervous system.
15. A colourless gas that is the main component of all protein compounds.	15. Nitrogen.
16. The thermometer whose scale ranges from $35^{\circ}\text{C}$ to $42^{\circ}\text{C}$ .	16. Medical thermometer



(23) write the Scientific term

- |   |                                  |
|---|----------------------------------|
| 17 - The main source of preparing nitrogen gas  | 17. Atmospheric air              |
| 18 - Materials that don't let heat flow through.  | Heat insulators                  |
| 19 - What fixes muscles to bones  | 19. Tendons.                     |
| 20 - The gas that turns limewater turbid  | 20. Carbon dioxide               |
| 21 - The building unit of nervous system  | 21. Neuron                       |
| 22 - The measurement unit of weight which is almost equal to a mass 100 grams.                        | 22. Newton.                      |
| 23 - A <u>flame</u> used (in) cutting and welding metals  | 23. <u>Oxy-acetylene flame</u> . |
| 24 - The phenomenon which leads to raise in the Earth's temperature and causes changes in the climate | - Global Warming                 |
| 25 - An organ connects the brain with the spinal cord and is responsible for involuntary processes    | 25. Medulla oblongata.           |
| 26 - A gas exists in the atmosphere that protects Earth from harmful radiation coming from the Sun.   | 26. Ozone gas                    |
| 27 - An instrument used for measuring the temperature of liquids                                      | 27. Celsius thermometer.         |
| 28 - The skeleton which includes the upper and lower limbs.   | 28. Appendicular skeleton        |
| 29 - A form of energy transfers from an object to another if they differ in temperature.              | 29 - Heat energy                 |



## (24) Write the Scientific term

- |  |                         |
|--|-------------------------|
| 30- A gas combines with oxygen to produce a flame whose temperature is sufficient to melt metals | 30- Acetylene gas       |
| 31- Types of muscles that work automatically and we can't control their movement.                | Involuntary muscles.    |
| 32- A gas used in making soft drinks   | 32- Carbon dioxide      |
| 33- A gas produced from green plants during photosynthesis process.                              | 33- Oxygen gas          |
| 34- A gas molecule that consists of two atoms of oxygen and one atom of carbon                   | Carbon dioxide gas      |
| 35- A gas prepared by using hydrogen peroxide  | 35- Oxygen gas          |
| 36- Spontaneous response of the body to different stimuli.                                       | 36- Reflex action       |
| 37- Gas increase in its percentage in air leads to the suffocation of living organisms.          | 37- Carbon dioxide gas. |
| 38- A gas used as an inactive material in the tanks of liquefied explosives such as petroleum.   | 38- Nitrogen gas        |
| 39- A gas can be prepared from adding dilute hydrochloric acid to calcium carbonate powder.      | 39- Carbon dioxide gas  |
| 40- Materials are used to make handles of cooking pots.  | 40- Heat insulators.    |
| 41- Liquid used in making thermometers   | 41- Mercury.            |



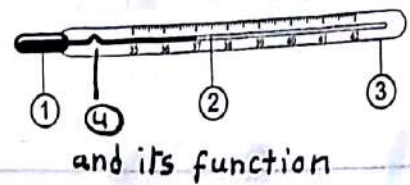
(25) write the scientific term

- |   |                        |
|---|------------------------|
| 42 - A chemical compound dissociates in the presence of manganese dioxide into water and oxygen.  | 42. Hydrogen Peroxide. |
| 43 - A tool used for measuring the objects weight   | 43. spring scale       |
| 44 - Materials that <u>Let</u> heat flow through.   | 44. Heat conductors    |
| 45 - A gas is used in making of stainless steel   | 45. Nitrogen           |
| 46 - The amount of Earth gravity to the body  | 46. Weight             |
| 47 - Ligaments tie muscles with bones   | 47. Tendons.           |
| 48 - A gas used in ammonia industry   | 48. Nitrogen gas       |
| 49 - An organ consists of 33 vertebrae  | 49. Backbone           |
| 50 - A gas which is necessary for rusting process.  | 50. Oxygen gas         |
| 51 - A gas used to extinguishing fire   | 51. Carbon dioxide     |
| 52 - A human organ consists of an internal substance in the grey matter and it appears in the shape of letter (H) surrounded by the white matter. | 52. spinal cord.       |



(26) 6 From the opposite figure, complete:

1- Notice the following figure of medical thermometer, then label it:



① Mercury bulb

② Capillary tube

③ Thick glass tube

④ Constriction: to prevent mercury from going back to the bulb quickly

2- In the opposite figure answer the following:

1. Number ① is dilute hydrochloric acid

2. Number ② is calcium carbonate

Mention 2 uses for the evolved gas

It is used in making soft drinks.

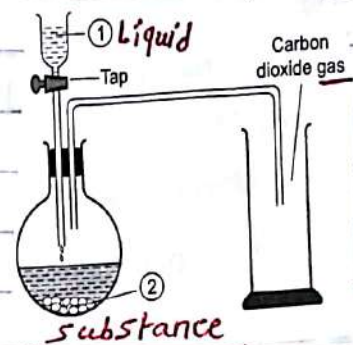
It is used in extinguishing fires

How the gas is collected? and why?

Carbon dioxide gas is collected by upward displacement of air because it is heavier than air and easily dissolves in water.

This apparatus is used for the preparation of:

Carbon dioxide gas.



3- Observe the opposite figure, and write the labels:

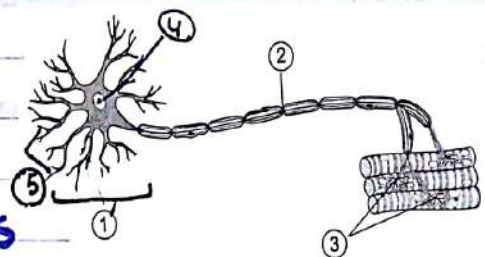
① Cell body

④ Nucleus

② Myelin sheath

⑤ Dendrites

③ Axon terminals



What is the name of the opposite figure?

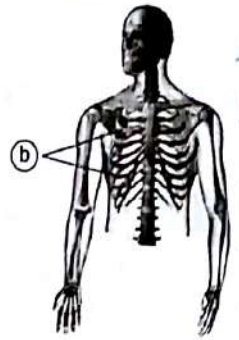
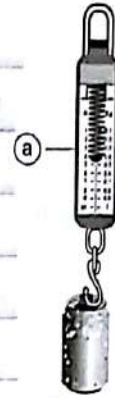
Neuron.



(27)

4. Look at the following figures, then answer the following questions:

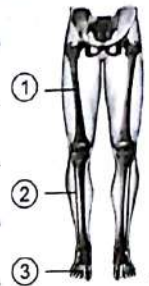
1. figure (a) represents the **spring scale** which is used to measure **weight of objects**



2. figure (b) represents the **ribcage (ribs)** which its function is **protect the heart and the Lungs.**

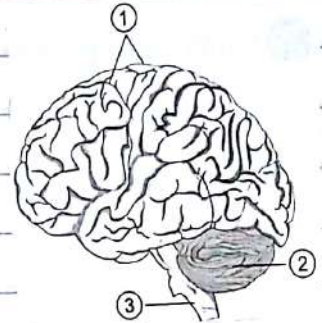
5. Mention the name of bones in Lower Limbs as on figure:

- ① **femur**
- ② **shaft bones**
- ③ **foot bones**



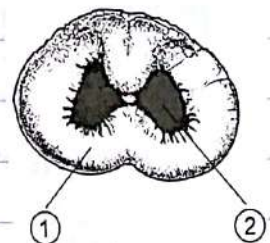
6. Examine the following figure and complete:

- ① **cerebrum**
- ② **cerebellum**
- ③ **Medulla oblongata**
- ④ The function of number ② is **to keep the balance of the body during movement.**



7. Notice the following figure for the spinal cord and write down the labels on the figure:

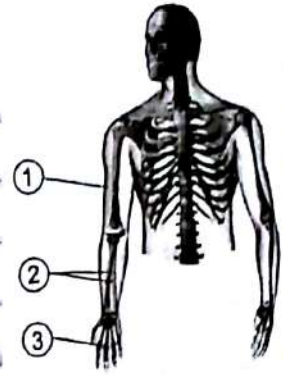
- ① **White matter**
- ② **Gray matter**





(28)

8. Look at the opposite figure, then label the numbered bones:



① Humerus bone.

② Forearm bones.

③ Hand bones.

7. What is the function (importance) of each of the following:

1. The spring scale

It is used to measure the weight of objects.

2. Celsius Thermometer.

It is used to measure the temperature of liquids.

3. Ozone layer

It protects the Earth from harmful radiation coming from the sun.

4. Cerebellum

It keeps the balance of the body during movement.

5. Tendons

They fix the muscles with bones.

6. Hydrogen Peroxide during the preparation of oxygen in the laboratory

It dissociates in the presence of manganese dioxide into oxygen gas and water.



(29)

What is the function of: (the role of)

7 - Dry ice

It is used in refrigeration (cooling).

8 - Hot copper in nitrogen preparation experiment.

It removes oxygen gas from atmospheric air by combining with it.

9 - Yeast in making bread.

It produces carbon dioxide during fermentation which makes bread porous and tasty.

10 - The balance scale.

It is used to measure the mass of objects.

11 - The constriction above the bulb in the <sup>clinical</sup> medical thermometer.

It prevents mercury from going back to the bulb quickly, so we can read the measurement easily.

12 - The two cerebral hemispheres.

They contain the centers of thinking and memory.

13 - Manganese dioxide in the preparation of oxygen.

It acts as a catalyst during preparation of oxygen.

14 - Oxy-acetylene flame

It is used in welding and cutting metals.

15 - Ribcage

It protects the heart and the lungs.



(30) mention one function (Role) (importance)

16- The joints

They allow the movement between bones.

17- Cartilages between vertebrae of the backbone.

They prevent friction between vertebrae during movement.

18- Nitrogen gas

It is used in making fertilizers.

19- Spinal cord.

It is responsible for the reflex action.

8 What happens in the following cases?

1- Continuous exposure the man to noise.

The nervous system will be exhausted.

2- Increase of Carbon dioxide percentage in the atmosphere  
The temperature of earth will increase and living organisms will suffocate.

3- We get rid of soil bacteria.  
Legumes such as clover, peas and soybeans can't produce proteins in the absence of soil bacteria.

4- Exhaled air passes through clear lime water <sup>calcium hydroxide</sup>.  
lime water turns into milky due to the presence of carbon dioxide <sub>CO<sub>2</sub></sub> in the exhaled air.

(31)

## What happens?

- 5- A lighted magnesium ribbon is placed in a jar filled with nitrogen gas.
  - A white substance is produced.
- 6- <sup>overuse</sup> Drinking big quantities of soft drinks.  
It causes osteoporosis and may cause death.
7. All the substances that man uses are good conductors of heat.  
We can't make handles of cooking pots and also we can't make heavy clothes that keep us warm in winter.
8. Condensation of nitrogen gas.  
Liquefied nitrogen is produced that is used in cooling.
- 9- Not leaving spaces between railway bars.  
Train accidents will occur.
- 10- The mercury bulb of medical thermometer is broken and mercury is spilled inside the mouth of the person using it.  
It causes poisoning to the person as mercury is a toxic substance.
- 11- The hand suddenly touches a hot object.  
The withdrawal of your hand will occur quickly.



(32)

## What happens

12. The reaction between nitrogen with oxygen by lightening Nitrogen oxide will produce.
13. The constriction is not found in the capillary tube of the medical thermometer.
  - Mercury will return back quickly to the bulb and we can't read the measurement correctly.
14. All human bones are fixed with each other.
  - The body can't move.
15. Putting a glowing magnesium ribbon in a jar containing carbon dioxide.
  - Magnesium ribbon keeps burning for a short time producing magnesium oxide which is a white substance and carbon which is a black substance.
16. The mass of cleansing wire after burning.
  - The mass of the cleansing wire will increase, because it combines with oxygen.
17. Making the handle of a Kettle from Copper.  
We can't hold the Kettle, because Copper is a good conductor of heat.
18. The overuse of stimulation substances.  
The nervous system will be harmed as they lead to nervous tension and affect the heartbeats.



### (33) What happens ...

19 - Nitrogen is not present in the atmospheric air.  
(protein) substance that builds up the bodies of all living organisms is not formed.

20 - A body moves away from the center of the Earth.  
The weight of the body will decrease.

21 - A (nail) wetted with water is exposed several days to humid air.

Iron will combine with oxygen in the presence of water  
So Iron will rust.

### 9 Calculate

1 - If the **mass** of a body equals **30 kg** on the **Earth** surface. Calculate:

1 - Its **mass** on the moon surface. **30 kg**

2 - Its weight on the Earth = **Its mass  $\times 10$**   
 $= 30 \times 10 = 300 \text{ Newton.}$

3 - Its weight on the moon = **Its weight on the Earth  $\times \frac{1}{6}$**   
 $= 300 \times \frac{1}{6} = 50 \text{ Newton.}$

2 - An object whose mass on Earth is equal to (6 kg).  
Calculate:

1 - Its weight on the surface of the Earth = **Mass  $\times 10$**   
 $= 6 \times 10 = 60 \text{ Newton}$

2 - Its weight on the surface of the moon =  
**Weight on Earth  $\times \frac{1}{6}$**   
 $= 60 \times \frac{1}{6} = 10 \text{ Newton}$



(34)  
10 Compare between

Point of Comparison	Good conductors of heat	bad conductors of heat
Definition	They are materials that let heat flow through	they are materials that don't let heat flow through.

2. Compare between the structure of the axial skeleton and the appendicular skeleton.

Point of Comparison	Axial skeleton	Appendicular skeleton
The structure	It consists of the skull, the backbone and the rib cage.	It consists of the bones of the upper limbs and the bones of the lower limbs.

3. Compare between mass and weight according to :

Point of Comparison	Mass	Weight
1. Measuring Unit	Kilogram or gram	Newton
2. Measuring device	Balance scale - - sensitive two arms scale - one arm digital scale - one arm scale with a pointer	Spring scale



(35)

Points of comparison	Cranial nerves	spinal nerves
The place where they emerge from	They emerge from the brain	they emerge from the spinal cord.
Their numbers	12 Pairs	31 pairs

Points of comparison	Immovable joints	freely movable joints
Definition	They are the joints that don't allow any movement	They are the joints that allow movement in all directions.
Example	joints between the bones of the skull	Shoulder joint

Points of comparison	oxidation	Burning
1. Definition	It is a <u>slow</u> combination (Union) between oxygen and element in the presence of moisture (water)	It is a <u>rapid</u> combination (Union) between oxygen and element producing heat and light
2. Example	Iron rusting	Burning a piece of cleansing wire



(36)

Points of comparison

Mass

Weight

Definition

The amount of matter in an object.

The gravitational force by which a body is attracted to the Earth

Effect of different places

Constant

Variable

Direction

It has no effect

Its effect is always towards the Centre of the Earth.

Points of comparison

Voluntary muscles

Involuntary muscles

Definition

They are the muscles that can move willingly and you can control its movement

They are the muscles that can move automatically and you can't control or even aware of their movement

Example

Face muscles

Blood vessels muscles

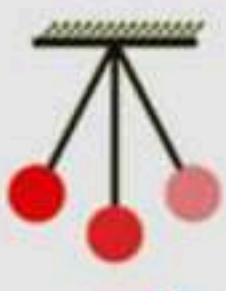
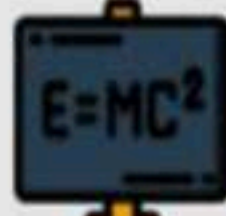
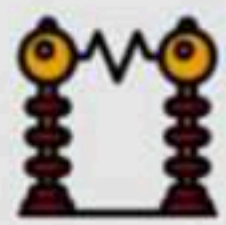
صلاح

مع عادة

علوم

مع تمييزات بالتوفيق



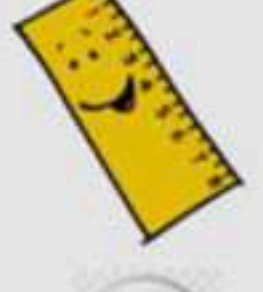
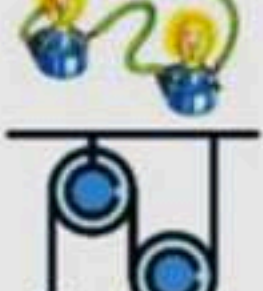
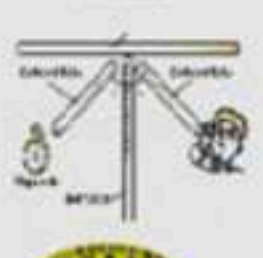


### General questions on science – first term Exercise (1)

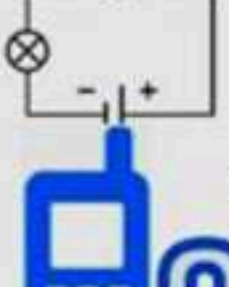
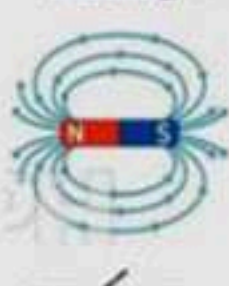
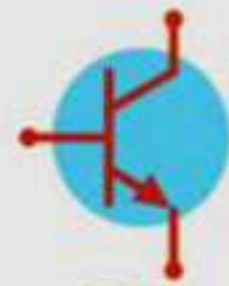
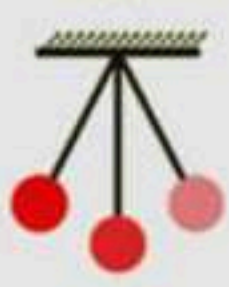
#### First Question:

- Choose the correct answer:

- 1 The mass of a body on the moon surface is 10 kgm so its mass on earth surface equals:
  - a 10 kgm.
  - b 10 Newton.
  - c 60 kgm.
  - d 60 Newton.
- 2 From the tools of measuring weight:
  - a Sensetive scale.
  - b double pans scale.
  - c Digital scale.
  - d spring scale.
- 3 The weight of a body its mass 200 gm on earth surface nearly equals:
  - a 2 Newton.
  - b 20 Newton.
  - c 200 Newton.
  - d 2000 Newton.
- 4 The Newton is nearly equals weight of a body its mass:
  - a 10 gm.
  - b 100 gms.
  - c 1000 gms.
  - d 10000 gms.
- 5 The mass of half liter of water equals:
  - a 5 gms.
  - b 50 gms.
  - c 500 gms.
  - d 5000 gms.
- 6 The weight of a person in a balloon at certain height from earth surface equals 70 Newton, what is the weight of the person on earth surface?
  - a 68 Newton.
  - b 69 Newton.
  - c 70 Newton.
  - d 71 Newton.
- 7 Which of the following is faster in conducting heat?
  - a aluminum.
  - b iron.
  - c copper.
  - d glass.
- 8 From the substances which are bad conductor of heat:
  - a iron and aluminum.
  - b copper and glass
  - c glass and wood.
  - d aluminum and copper.







9 The operation of thermometer depends on the idea of:

- a The change of gases volume with the change in temperature.
- b The change of liquids volume with the change in temperature.
- c The change of gases mass with the change in temperature.
- d The change of liquid mass with the change in temperature.

10 The clinical thermometer is different from Celsius thermometer in:

- a The type of matter present in the reservoir
- b The presence of constriction in the capillary tube
- c The type of matter used in manufacturing
- d The effect of change temperature on the present liquid volume

11 All the following from the properties of mercury as themometrical substance except:

- a good conductor of heat.
- b its expansion is regular.
- c give limited extent to measure the temperature.
- d not adhere to the walls of capillary tube.

12 Which of the following gases have great percentage in atmospheric air:

- a oxygen.
- b nitrogen.
- c carbon dioxide.
- d water vapour.

13 Oxygen is present in the atmosphere in gas state in form of molecules ,its structure:

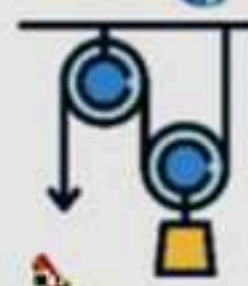
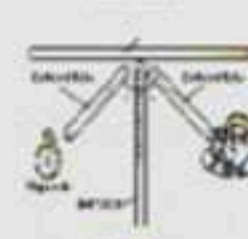
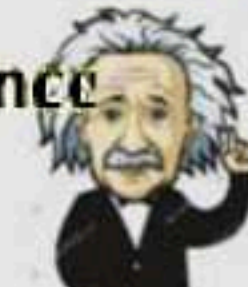
- a O.
- b  $O_2$ .
- c  $O_3$ .
- d  $O_4$ .

14 Respiration and combustion processes consume ..... gas:

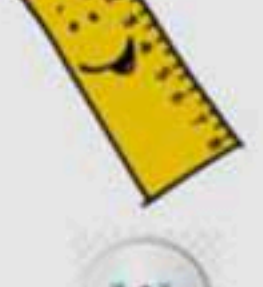
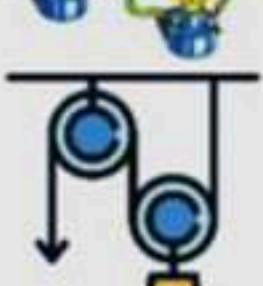
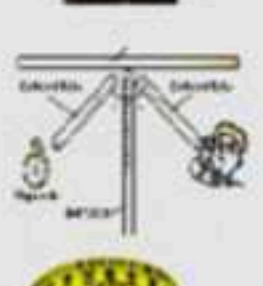
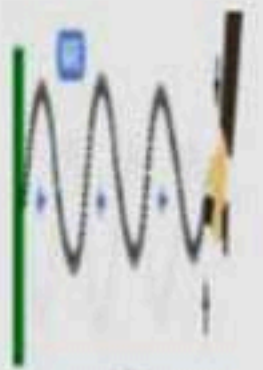
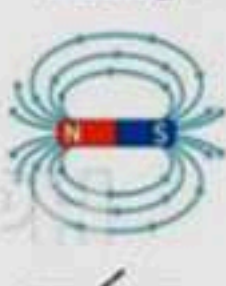
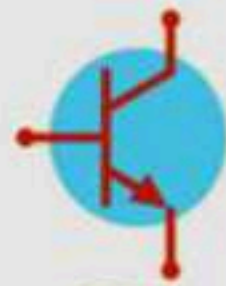
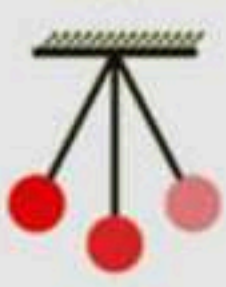
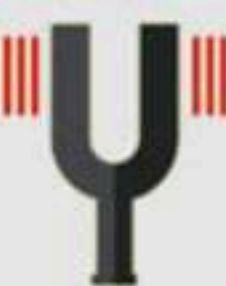
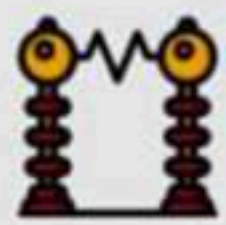
- a oxygen.
- b nitrogen.
- c argon.
- d carbon dioxide.


15 Hydrogen peroxide decomposes in presence of manganese dioxide to:

- a oxygen and hydrogen.
- b oxygen and water.
- c hydrogen and water.
- d hydrogen and manganese.





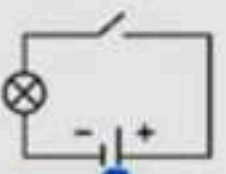
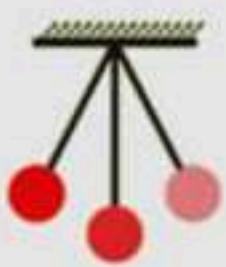
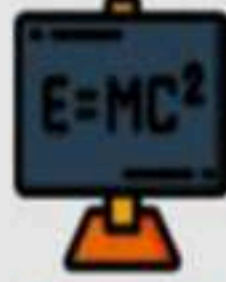


- 
- 16** When a glowing magnesium ribbon is placed in a jar contains nitrogen gas then adding a little of water ..... gas evolves:
- a** oxygen. **b** nitrogen.  
**c** ammonia. **d** hydrogen.
- 17** Which of the following can be obtained on adding dilute hydrochloric acid to calcium carbonate powder?
- a** nitrogen. **b** oxygen.  
**c** hydrogen. **d** carbon dioxide.
- 18** All the following are from the constituents of the brain except:
- a** two cerebral hemispheres. **b** cerebellum.  
**c** medulla oblongata. **d** spinal cord.
- 19** Which of the following is responsible for keeping the body balance?
- a** medulla oblongata. **b** two cerebral hemispheres.  
**c** spinal cord. **d** cerebellum.
- 20** Medulla oblongata is responsible for:
- a** controlling the voluntary movement. **b** keeping the body balance.  
**c** controlling the involuntary processes. **d** reflex action.
- 21** Which of the following joints is limited movement?
- a** shoulder. **b** wrist.  
**c** thigh. **d** elbow.

### Second question:

- 1 A piece of rock is placed in a pan of double pans scale, the sum of masses which are placed in the other pan is 300 gm to make balance.
- Answer the following:
    - a What is the mass of the piece of rock? What the direction of the effect of this mass?
    - b What is the weight of the piece of rock? What the direction of the effect of this weight?
    - c What is the effect of changing the place on both mass and weight of the rock piece?





**2** Mention one function for each of the following:

- (a) Skull.
- (b) Theoretic cage.
- (c) The two cerebral hemispheres.
- (d) Spinal cord.
- (e) The vertebral column.

**3** Explain the following:

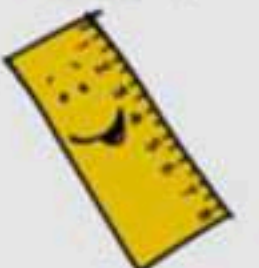
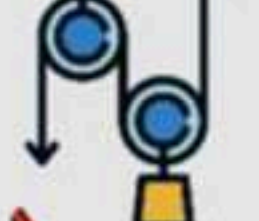
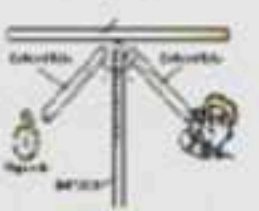
- (a) In the clinical thermometer there is a constriction in the capillary tube above mercury reservoir.
- (b) The clinical thermometer is not used to measure boiling point of water.
- (c) The mercury is used in manufacture of thermometers.
- (d) Ozone layer has great importance in the life of creatures on the earth Surface.
- (e) A white precipitate is formed when carbon dioxide gas passed in clear lime water.
- (f) Nitrogen is used in filling cars and airplanes' tires.

**4** What would happen in the following cases?

- (a) Nitrogen is not present in the atmospheric air.
- (b) The percentage of carbon dioxide gas increases in the atmospheric air.
- (c) There are no joints in the skeleton.
- (d) The knee joint becomes from wide movement joints.
- (e) Continuous exposing to the noise.
- (f) The over use of stimulation drugs.

**5** How to obtain:

- (a) Nitrogen from atmospheric air.
- (b) Carbon dioxide from calcium carbonate.
- (c) Oxygen from hydrogen peroxide.







## Model Answer

## Answer first question

- 1- 10 Kgm
- 2- Spring scale
- 3- 2 Newton
- 4- 100 gm
- 5- 500 gm
- 6- 71 Newton
- 7- Copper
- 8- Glass and wood
- 9- The change of liquid volume with the change of temperature
- 10- The presence of a constriction in the capillary tube
- 11- Give limited extent to measure the temperature
- 12- Nitrogen
- 13-  $O_2$
- 14- Oxygen
- 15- Oxygen and water
- 16- Ammonia
- 17- Carbon dioxide
- 18- Spinal cord
- 19- Cerebellum
- 20- Controlling the involuntary processes
- 21- Elbow

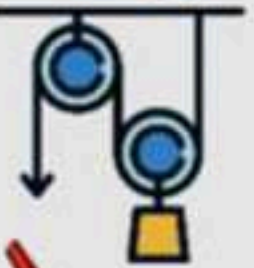
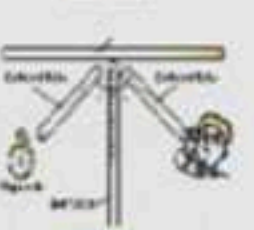
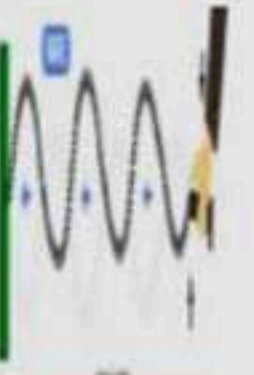
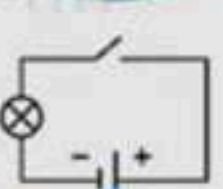
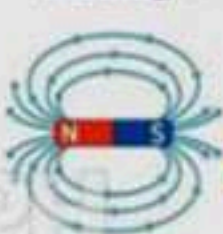
## Answer second question

1-

a. The mass = 300 gm – mass has no direction

b. The weight =  $0.3 \text{ kg} \times 10 = 3 \text{ Newton}$  (the direction of weight is towards the center of the earth)

c. The mass doesn't change by changing place but the weight changes by changing the place.

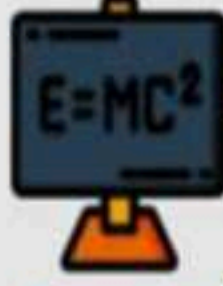






2-

- It protects the brain
- It protects the heart and the two lungs
- They control the voluntary movements, control the 5 sense organs and contain centers of thinking and memory
- It delivers nerve messages from all body parts to the brain and vice versa.
- It allows the body to bend in different directions and it protects the spinal cord.

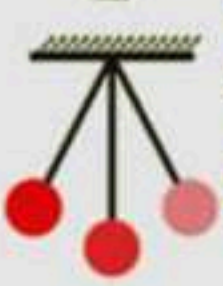


3-

- To prevent mercury from going back fast to the mercury bulb
- Because if we put it in a boiling water it will be broken
- Because:



- It is a liquid metal that can be seen easily through the thermometer glass.
- Mercury is a good conductor of heat.
- Mercury is a regular expanding material which gives an accurate estimation.
- Mercury doesn't stick to the walls of the capillary tube.
- Mercury remains liquid between  $-39^{\circ}\text{C}$  and  $357^{\circ}\text{C}$  and this gives a wide range to temperature measurement.



- Because ozone layer protect the Earth from harmful radiations coming from the sun.
- Because carbon dioxide changes clear lime water from calcium hydroxide (soluble in water) to calcium carbonate (insoluble in water).
- Because it keeps constancy of volume of tires when temperature changes



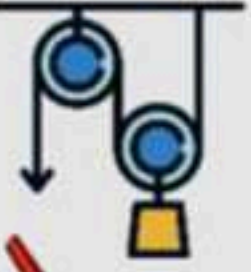
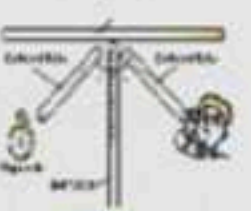
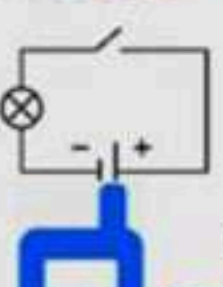
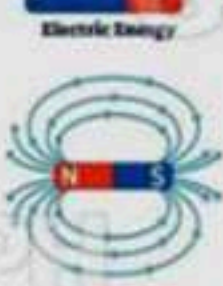
4-

- The protein substance that build up the bodies of all living organisms will not be formed.
- The living organisms will suffocate and the temperature of the Earth will increase.
- The body can't move (no movement between bones)
- It will allow movements freely in all directions.
- The nervous system will be passively affected.
- They will affect heart beats, affect sleeping periods and cause nervous tension

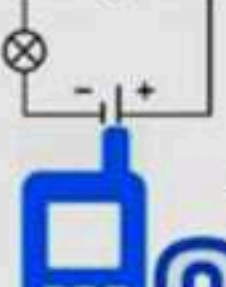
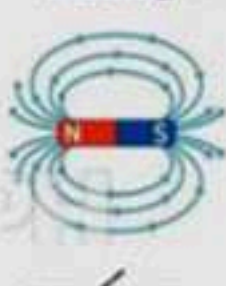
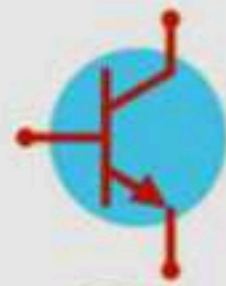
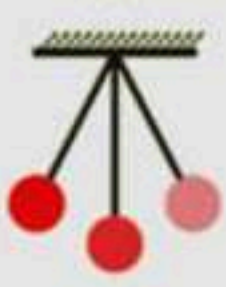


5-

- By passing atmospheric air through sodium or potassium hydroxide (to remove carbon dioxide) then passing it over hot copper (to remove oxygen)
- By adding dilute hydrochloric acid to calcium carbonate.
- By decomposing hydrogen peroxide in presence of manganese dioxide as a catalyst.







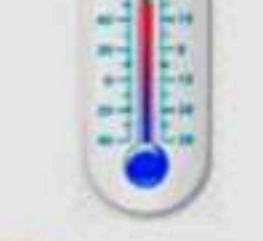
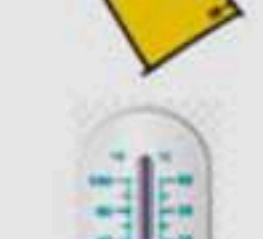
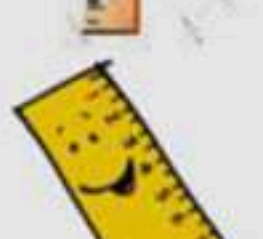
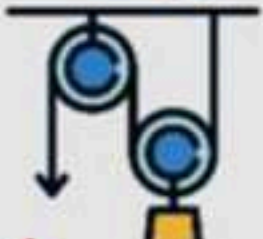
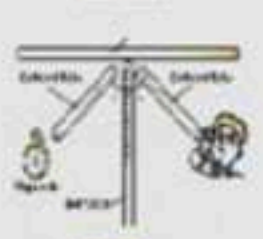
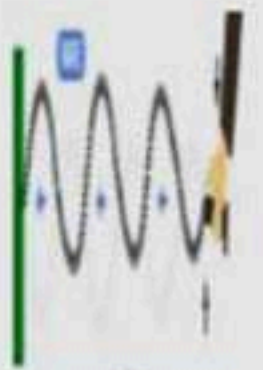
## Exercise (2)

First question: Complete the following statements:

- 1 The peripheral nervous system consists of ..... and ..... nerves.
- 2 The axon of nerve cell is surround by ..... sheath.
- 3 The brain consists of ..... and .....
- 4 The over intake of tea and coffee causes .....and .....

Second question: Choose the correct answer from the following:

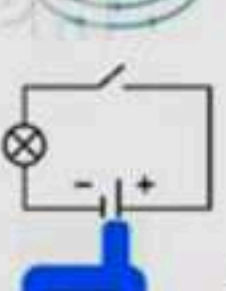
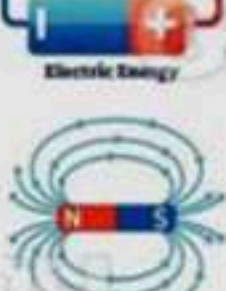
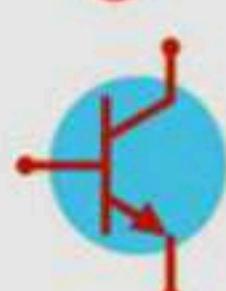
- 1 The outer surface of the two cerebral hemispheres is called cerebral cortex and its colour is:
  - a red
  - b orange
  - c black
  - d gray
- 2 ..... are from the reflex actions:
  - a Heart beats.
  - b The eye close on approaching an external body .
  - c Eating when we are hungry.
  - d All the previous are correct.
- 3 The five sensation centers are in:
  - a Two cerebral hemispheres
  - b cerebellum
  - c Medulla oblongata
  - d brain







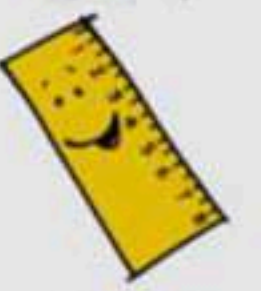
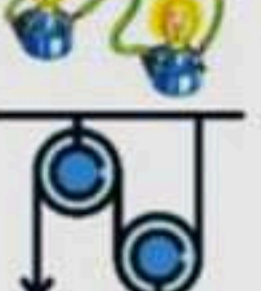
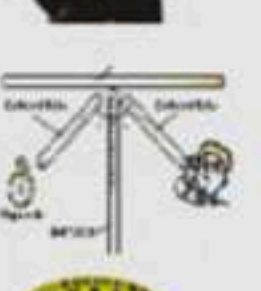
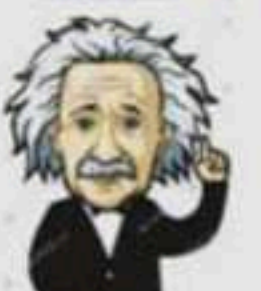
Third question: Give reasons for the following:



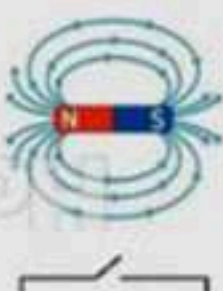
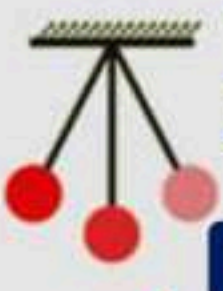
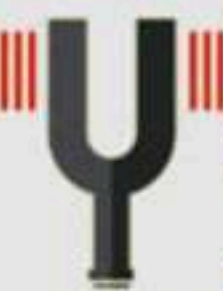
- 1 The weight of any body is different as the planets differ.
- 2 The handles of cooking pots are made of wood or plastic while the cooking pots are made of aluminum.
- 3 The clinical thermometer is used in measuring human body temperature while it is not suitable for measuring the liquid temperature.
- 4 Mercury is used in clinical thermometer.
- 5 Oxygen is collected by down displacement of water.
- 6 Divers use oxygen cylinders during diving in water.
- 7 Oxygen ratio still constant in atmospheric air although a large part of it is consumed during respiration and combustion processes.
- 8 Carbon dioxide gas has great vital importance in life continuity on earth surface.
- 9 Nitrogen gas is important for our life.

Fourth question: Compare between each of the following:

- 1 Mass and weight.
- 2 Clinical thermometer and Celsius thermometer.
- 3 Bad heat conductor substances and good heat conductor substances.
- 4 Oxygen gas and carbon dioxide gas from the point of properties of each.







## Model Answer

## Answer first question

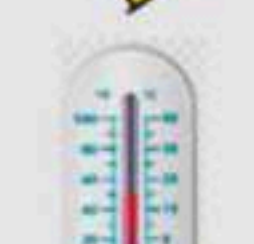
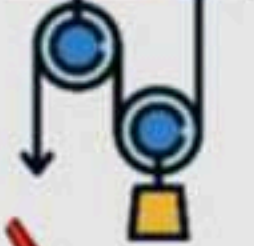
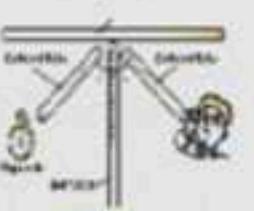
1. Cranial - spinal
2. Myelin
3. Cerebrum - cerebellum - medulla oblongata
4. Nervous tension - affect sleeping times

## Answer second question

- 1- Grey
- 2- The eye close when approaching an external body.
- 3- Two cerebral hemispheres

## Answer third question

- 1- Because as the mass of the planet changes, its gravity changes, so the weight of any object on it changes.
- 2- Because wood or plastic are bad conductors of heat while aluminium is a good conductor of heat
- 3- Because clinical (medical) thermometer scale is from  $35^{\circ}\text{C}$  to  $42^{\circ}\text{C}$  that is not enough to measure temperature of liquids.
- 4- Because:
  - a. It is a liquid metal that can be seen easily through the thermometer glass.
  - b. Mercury is a good conductor of heat.
  - c. Mercury is a regular expanding material which gives an accurate estimation.
  - d. Mercury doesn't stick to the walls of the capillary tube.
  - e. Mercury remains liquid between  $-39^{\circ}\text{C}$  and  $357^{\circ}\text{C}$  and this gives a wide range to temperature measurement.

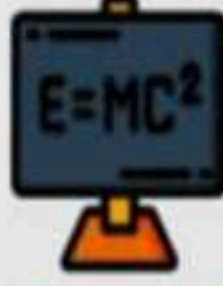






5- Because oxygen is scarcely dissolved in water

6- Because oxygen gas is needed for respiration under water.



7- Because green plants produce oxygen gas during photosynthesis process.



8- Because carbon dioxide gas is important for green plants to make photosynthesis process to produce their food and oxygen which is important for respiration of all living organisms.



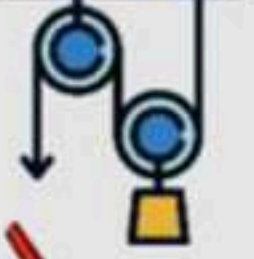
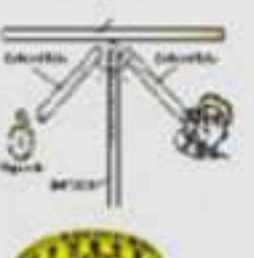
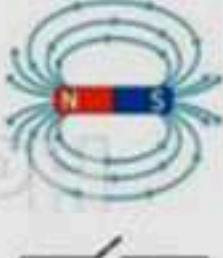
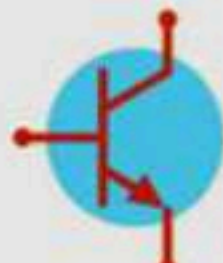
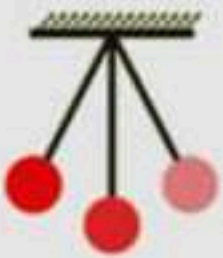
9- Because it forms proteins that contribute in the composition of body of all living organisms.



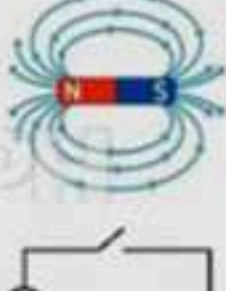
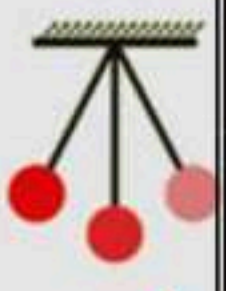
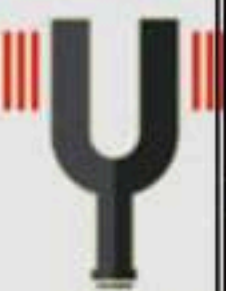
### Answer fourth question

1-

Point of comparison	Mass	Weight
Definition	The amount of matter in an object	The force by which a body is attracted to Earth
Unit of measurement	Gram or Kilogram	Newton
Device of measurement	A balance scale	A spring scale
Direction	Has no direction	It is towards the center of the Earth
Effect of different places	Constant (doesn't change with the change in place)	Changes from place to another





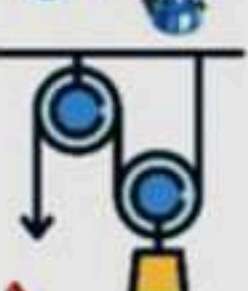
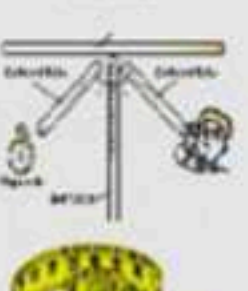
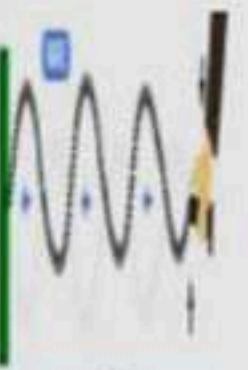


2-

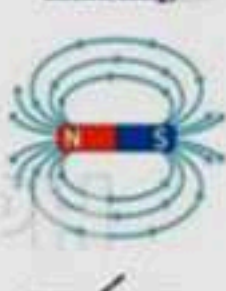
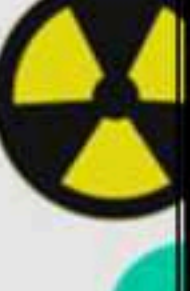
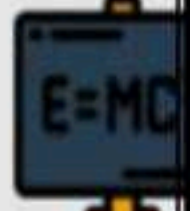
Points of comparison	Celsius thermometer	Medical thermometer
<b>Composition</b>	Transparent thick glass tube Capillary tube closed from one of its ends Mercury bulb that is filled with mercury and connected to the other end of the capillary tube	
<b>Constriction</b>	Absent	Present
<b>Range of scale</b>	From 0°C to 100°C	From 35°C to 42°C
<b>The used liquid</b>	Mercury	Mercury
<b>Usage</b>	It is used to measure the temperature of liquids	It is used to measure the temperature of the human body

3-

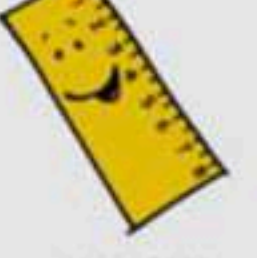
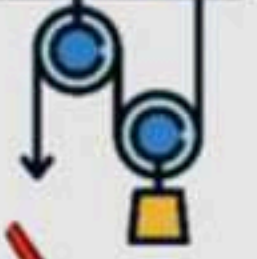
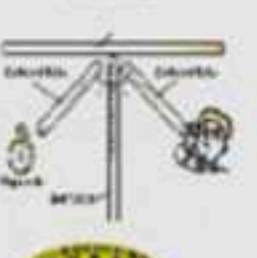
Points of comparison	Heat conductors	Heat Insulators
<b>Definition</b>	They are the materials that let heat flow through	They are the materials that don't let heat flow through
<b>Examples</b>	Copper, aluminium, iron and stainless steel	Glass, wood, paper, plastic, wool, air, liquids and rubber
<b>Uses</b>	Making cooking pots and kettles	Making the handles of cooking pots, irons and kettles Making heavy blankets and woolen cloths







4-

**Points of comparison****Oxygen gas****Carbon dioxide gas****Properties**

- ① It is has no colour and smell
- ② It is scarcely (rarely) dissolved in water
- ③ It has neutral effect on red and blue litmus paper:
- ④ It doesn't burn but it helps in burning
- ⑤ It is heavier than air so it replaces the air.
- ⑥ It combines with lighted magnesium ribbon to form magnesium oxide which is white matter
- ⑦ It has the ability to combine with moist elements forming oxides

- ① It doesn't burn and doesn't help in burning, so it used in extinguishing fires.
- ② It reacts with magnesium forming magnesium oxide (white powder) and carbon or coal (black substance)
- ③ It is colourless and odourless.
- ④ It is heavier than air so it is collected by upward displacement of air.
- ⑤ It is dissolved in water so it is not collected by displacement of water.





**Answer fifth question**

1- A reflex action of kicking movement of the lower leg.

2-

- a. Retardation of memory and learning.
- b. Nervous tension.
- c. Sluggishness.
- d. Loss time sensation.
- e. Sleepless.

3- they:

- a. Affect sleeping periods.
- b. Affect heartbeats.
- c. Lead to nervous tension.

**Answer sixth question**

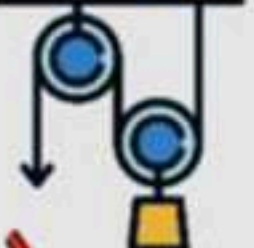
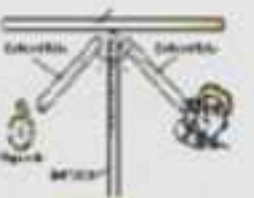
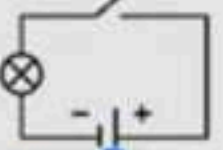
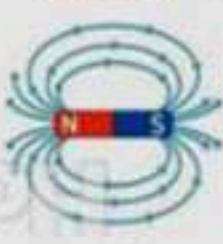
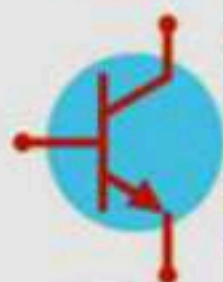
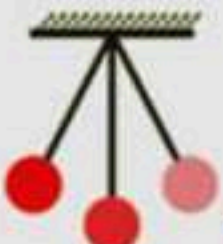
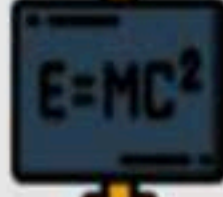
1- Muscles generate mechanical energy that moves your body.

2- Manganese dioxide acts as catalyst in preparation of oxygen gas.

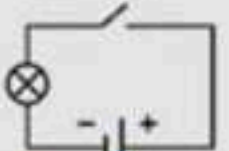
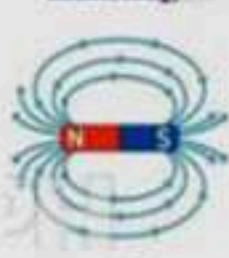
3-

- a. It is a liquid metal that can be seen easily through the thermometer glass.
- b. Mercury is a good conductor of heat.
- c. Mercury is a regular expanding material which gives an accurate estimation.
- d. Mercury doesn't stick to the walls of the capillary tube.
- e. Mercury remains liquid between  $-39^{\circ}\text{C}$  and  $357^{\circ}\text{C}$  and this gives a wide range to temperature measurement.

4- It is the building unit of the nervous system.



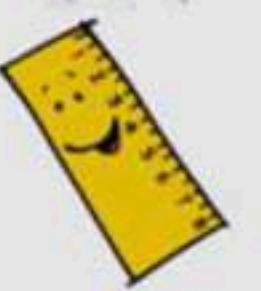
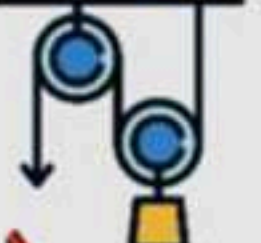
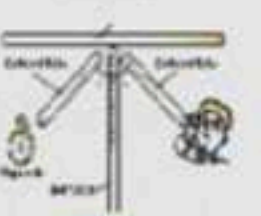




## Exercise (3)

First question: Complete the following statements:

- 1 The mass is measured by ..... unit while the weight is measured by .....unit
- 2 The factors affect the weight of the body depend on ..... and .....
- 3 The weight of the body on moon surface equals ..... of its weight on earth's surface.
- 4 The weight of the body on earth's surface increases as the ..... increases
- 5 As the mass of the planet on which the body exists, the ..... of the planet increases and ..... of the body increases .
- 6 The weight is .....
- 7 The heat is a form of the forms of .....
- 8 The temperature considers as indicator help us to express ..... and ..... of the body .
- 9 The good conductor substances of heat are the substances which ..... as .....
- 10 The bad conductor substances of heat are the substances which ..... as .....







11 The heat is used in industry and preparing of .....



12 The main idea of thermometer action is the change of the ..... of the liquid inside as the ..... change.



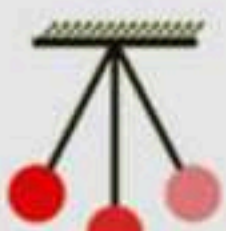
13 From the types of thermometers ..... and .....



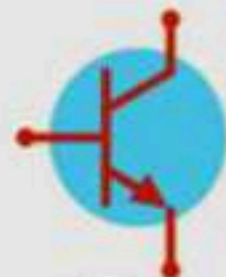
14 The Celsius thermometer is used in measuring .....



15 The Oxygen gas is produced plentifully from ..... during ..... process



16 The Oxygen gas of the atmosphere is consumed during ..... and ..... processes



17 From the uses of oxygen gas are .....



18 Carbon dioxide gas is produced as result of the combustion of ..... as ..... also produced from ..... of living organism.



19 The properties of carbon dioxide gas are .....



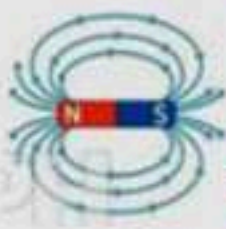
20 The Nitrogen gas occupies ..... % from atmospheric air.



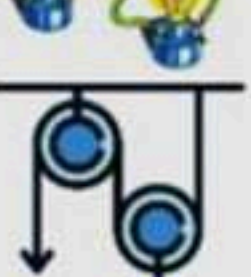
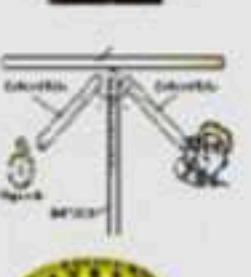
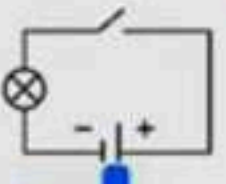
21 Nitrogen gas is used in manufacture of ..... which does not makes rust



22 The nervous system consists of two main systems are ..... and .....



23 The brain consists of ..... and .....







24 The axial skeleton consists of ..... and ..... and .....



Second question: Put (✓) or (x) in front of each of the following statement:



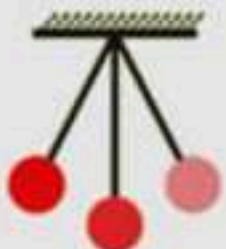
1 The mass of the body changes as its location changes.



2 The digital balance is used in measuring weight.



3 Copper is considered from bad conductor substance.



4 Aluminum conduct heat faster than copper.



5 Mercury is considered from bad conductor substance.



6 Celsius thermomter is used to measure human temperature.



7 Carbon dioxide gas turns clear lime water turbid.



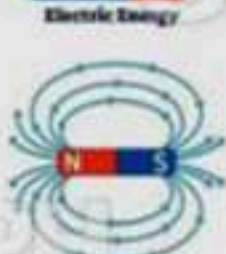
8 Nitrogen gas is called azote and its meaning gas of life.



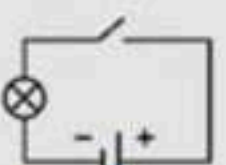
9 In legumes plants the nodular bacteria fix nitrogen of atmospheric air.



10 The location of medulla oblongata is below cerebellum and joins the brain by spinal cord.



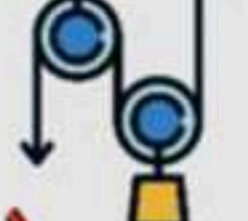
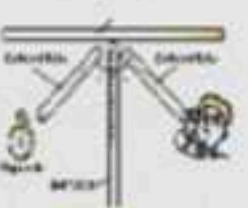
11 From the brain, 10 pairs of cranial nerves comes out.



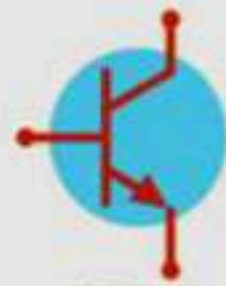
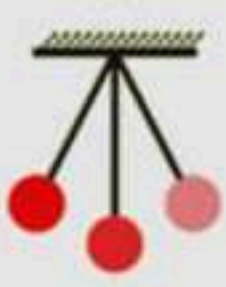
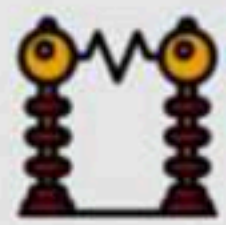
12 The wrist joint is consider as freely movable joint.

13 The spinal cord is responsible for reflex action in human body.

14 The cerebellum is the center of the main control in your body.



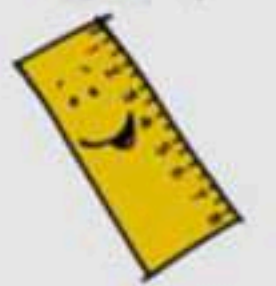
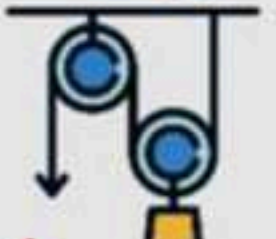
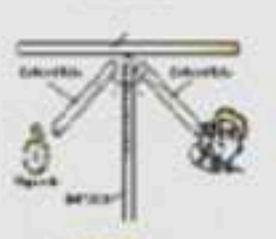




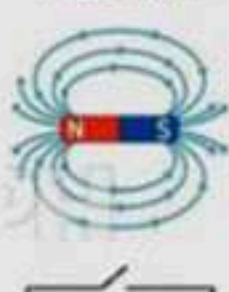
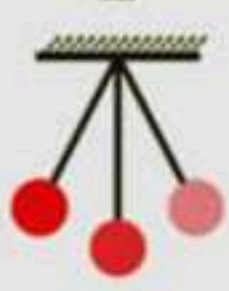
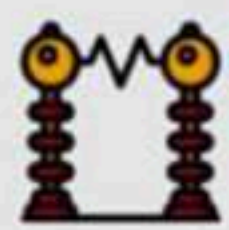
15 Carbon dioxide is used in manufacture of soft drink.

Third question: Write the scientific term for each of the following

- 1 The amount of matter that the body contains .
- 2 The amount of earth gravity to the bodies .
- 3 The substances that allow heat to pass through .
- 4 The substances that not allow heat to pass through.
- 5 An instrument used for measuring the temperature .
- 6 The gas that turns lime water turbid.
- 7 A gas used in its preparation hydrogen peroxide .
- 8 A gas produced from respiration and comes out with exhaled gas.
- 9 A gas used in the storage petroleum and some inflammable substances.
- 10 The building unit of nervous system .
- 11 A bony case that contains brain inside.
- 12 A part of nervous system that responsible for the transfer of nervous message from different parts of the body to the brain and vice verse .
- 13 It consists of 33 bony vertebrae .







14 Types of muscles act spontaneously and can not be controlled.

15 Group of joints that allow movement in one direction.

16 Long strips that fix muscles on bones.

Fourth question: Correct the following statement

1 The shoulder joint is considered from immovable joints.

2 The cartilages join between muscles and bones.

3 The number of cranial nerves is 31 pairs.

4 The spinal cord controls heart beats.

5 The location of cerebellum is behind the brain over the two cerebral hemispheres.

6 The axon of the nerve cell is surrounded by gelatinous layer.

7 Synapse is formed as result of connection of nerve cell axons.

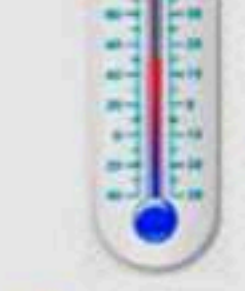
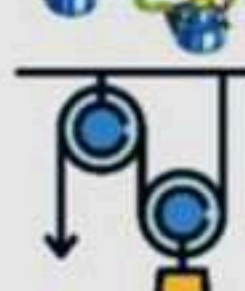
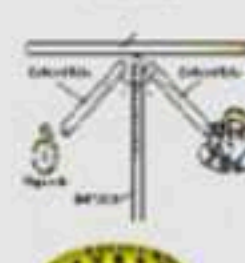
8 Nitrogen gas dissolves in water.

9 Oxygen gas is used in cooling.

10 The molecule of Ozone gas consists of four Oxygen atoms.

11 The graduation of clinical thermometer is from  $37^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  and each degree is graduated to ten parts.

12 The different metals transfer heat by the same rate.





13 The mass of a body on earth's surface equal 6 kgm, so it's mass on moon surface equal 1 kgm.

14 The mass of one liter of distilled water equals 100 gm .

15 The liquid used in clinical thermometer is the alcohol.

Fifth question: Choose the correct answer from the following:

1 The joints which allow movement in one direction only are called..... joints.

(a) immovable

(b) slightly movable

(c) freely movable

2 The locations in which the bones meet together are called .

(a) tendon

(b) joints

(c) humerus

3 The planet on which the body weight equals 6 times as its weight on the moon is

(a) mars

(b) earth

(c) Jupiter

4 The weight (Newton) = the mass (kilogram)  $\times$  .....

(a) 10

(b) 100

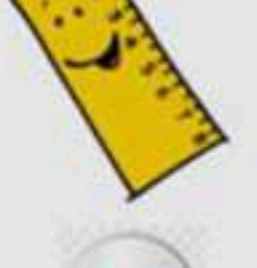
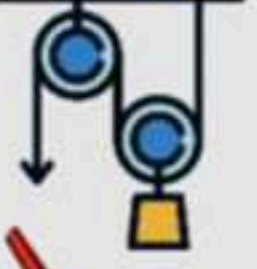
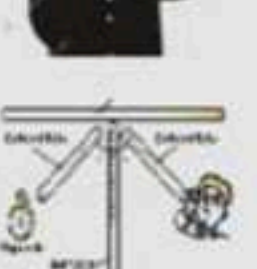
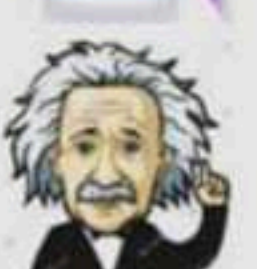
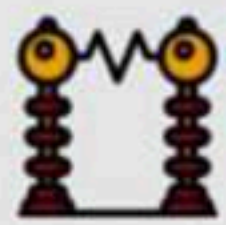
(c) 1000

5 If the body weight on earth surface equals 6 Newton , its weight on moon surface equals ..... Newton

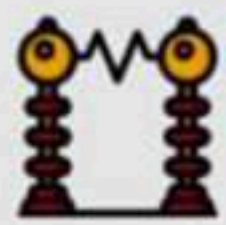
(a)  $\frac{1}{2}$

(b) 1

(c)  $\frac{1}{6}$







6 The central nervous system consists of .....

- ☐ a brain ☐ b spinal cord ☐ c all the previous



7 A gas can be prepared by using calcium carbonate powder and dilute hydrochloric acid is .....

- ☐ a oxygen ☐ b nitrogen ☐ c carbon dioxide



8 When the exhaled gas passed through clear lime water, it becomes turbid forming substance called .....

- ☐ a calcium carbonate ☐ b calcium oxide ☐ c calcium hydroxide



9 ..... gas is one of the components of gunpowder.

- ☐ a oxygen ☐ b carbon dioxide ☐ c nitrogen



Sixth question: What is the scientific reason for each of the following?



1 The bodies always fall down towards earth .

2 Cooking pots are made of aluminum while its handles are made of plastic or wood

3 The balance scale must be on horizontal stable surface.

4 The wire of spring balance expands when a body is hanged to it .

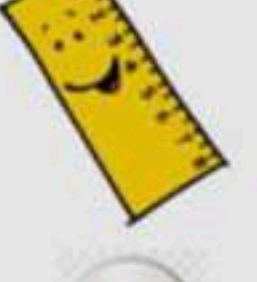
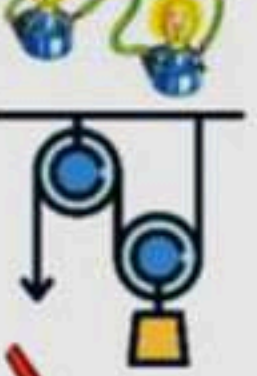
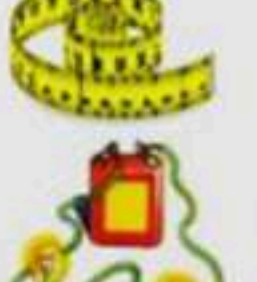
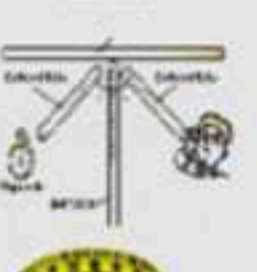
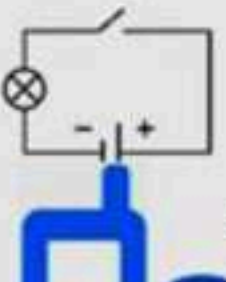
5 The weight of the body on earth's surface differs from its weight on another planet .

6 The body weight in a balloon is different from its weight on the earth's surface.

7 In clinical thermometer there is a constriction above mercury reservoir.

8 Manganese dioxide still without change in quantity and properties during preparation of oxygen .

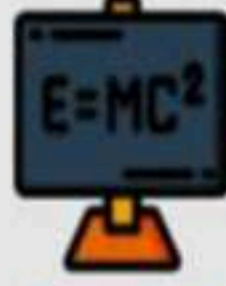
9 Ozone gas is very important in nature .







10 The ratio of carbon dioxide gas increases in nature in last years .



11 Carbon dioxide gas is used in putting off fires .



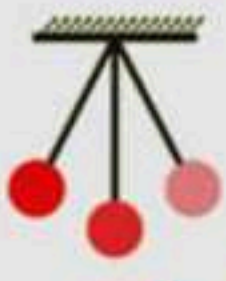
12 Yeast is added to dough during making bread.



13 Carbon dioxide gas is important for the nature .



14 Pungent odour is evolved as result of addition of water to the product of burning magnesium in nitrogen.



15 Nitrogen gas is called azote.



16 The staying away from tranquilizers and stimulants .



17 The cerebellum has great importance during the movement of the body.



18 The infection of medulla oblongata causes death.



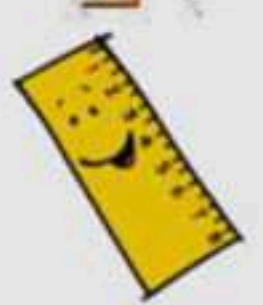
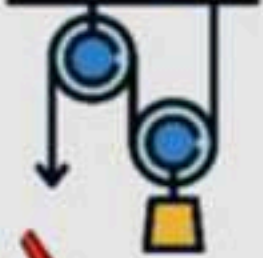
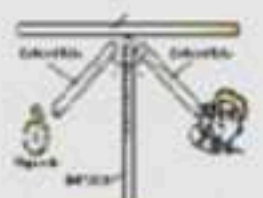
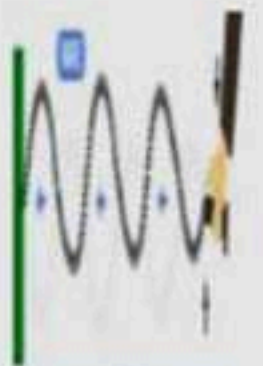
19 The withdrawal of hand quickly upon touching sharp pin or hot body.



20 The necessity of eating healthy food rich in calcium.



21 We can not control the muscles of alimentary canal, blood vessels and urinary bladder .







22 The appendicular skeleton system is important for human life .



23 The muscular system is consider as the main engine of our body.



24 There are cartilages between the vertebrae of the back bone .

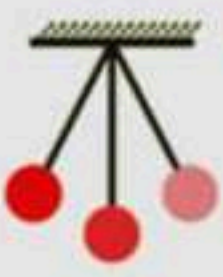


25 There is a brain inside the skull .

26 The decrease of green area harms the environment.



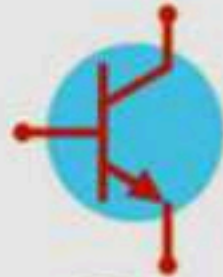
27 Oxygen cylinders are used during mountain climbing .



Seventh question: What is the importance of each of the following?

1 Earth gravity .

2 Thermometers .



3 The two arm balanced scale .



4 Spring scale.

5 The plastic handles of cooking pots.



6 The rib cage .

7 The cartilages .



8 The tendons .

9 The joints.



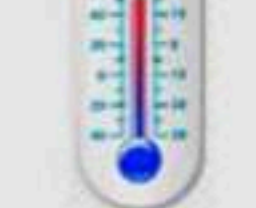
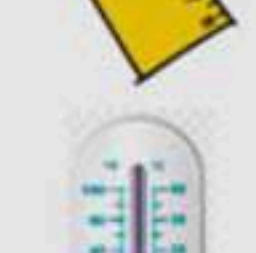
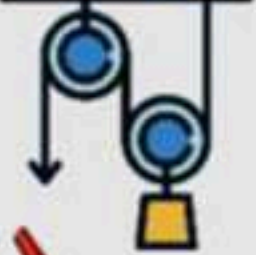
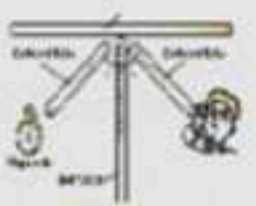
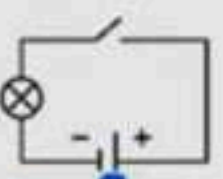
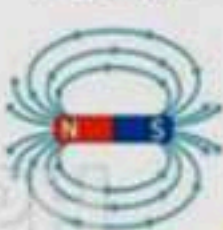
10 The dendrites of the nerve cell.

Eighth question: Compare between each of the following :

1 The two arm balance scale and Spring scale.

2 The central nervous system and peripheral nervous system .

3 The axial skeleton and appendicular skeleton .







Ninth question: What is the main use of?



1 The good heat conductor substance .



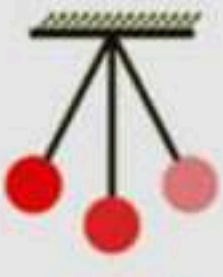
2 The bad heat conductor substance .



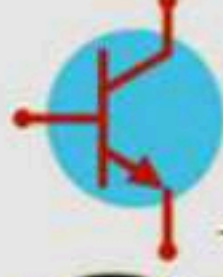
3 The oxyacetylene flame .



4 Clear limewater.



5 Manganese dioxide in oxygen preparation.



6 Carbon dioxide in our daily life.



7 Nitrogen gas in our daily life.



Tenth question: Define each of the following

1 Mass.



2 Weight.



3 Heat.



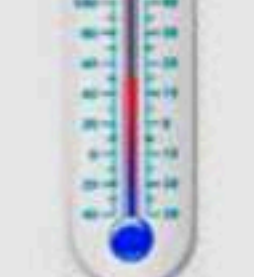
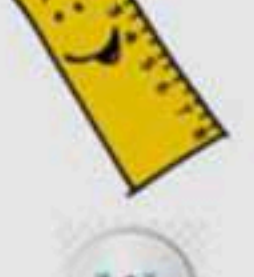
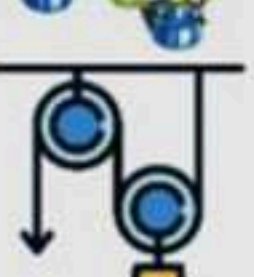
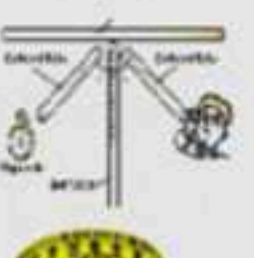
4 Temperature.



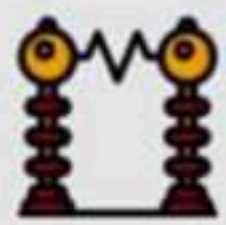
5 The good heat conductor substances.



6 The bad heat conductor substances.







**Eleventh question:** What would happen in the following cases to?



1 A mass of cleansing before and after heating.



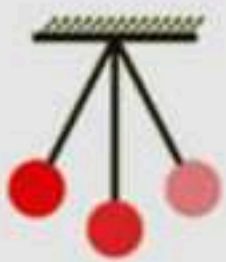
2 The decrease of the carbon dioxide quantity in nature.



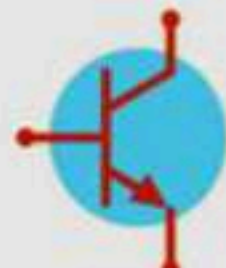
3 The decrease of the oxygen quantity in nature.



4 The decrease of the nitrogen quantity in nature.



5 There is no earth gravity.



6 The over take of stimulating substances.



7 Jumping from high places.



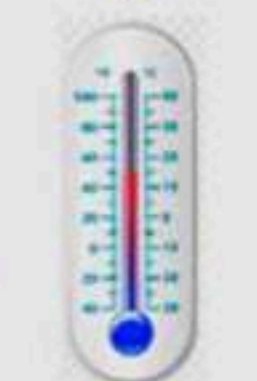
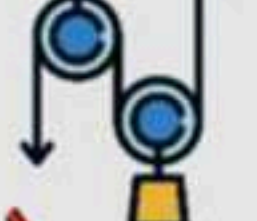
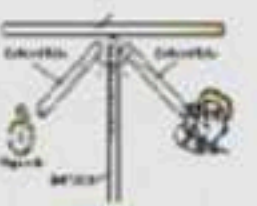
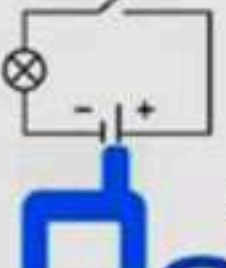
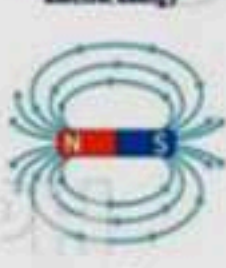
**Twelfth question:** Join from column (a) what is suitable from column (b)



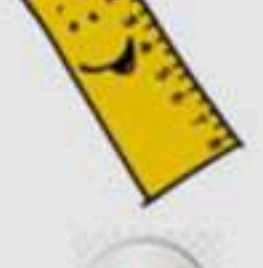
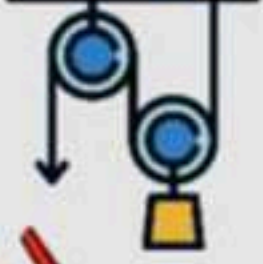
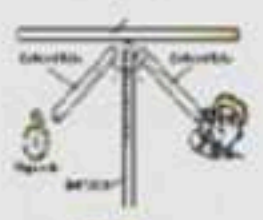
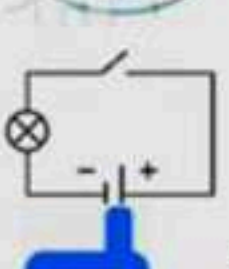
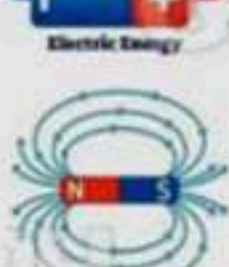
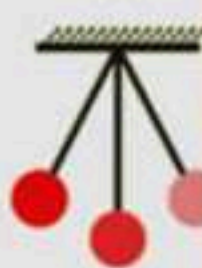
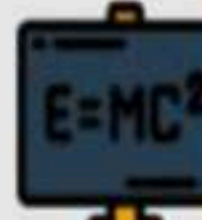
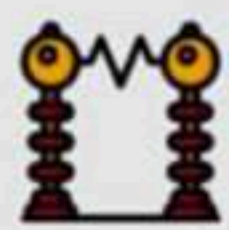
(A)	(B)
(a) gram	1- is the measuring unit of the weight
(b) kilogram	2- is the measuring unit of temperature
(c) Newton	3- is the measuring unit of heavy body mass
(d) Celsius degree	4- is the measuring unit of light body mass
	5- is the measuring unit of volume



(A)	(B)
(a) Copper	1- is bad conductor of heat
(b) Plastic	2- conducts heat faster than aluminium
(c) Mercury	3- is a liquid used in manufacture of thermometers
(d) Alcohol	4- is a liquid used in sterilizing of thermometers before usage
	5- is used in manufacture of fertilizers







(A)	(B)
(a) cranial nerves	1- responsible for involuntary processes
(b) spinal nerves	2- responsible for voluntary processes
(c) medulla oblongata	3- responsible for reflex actions
(d) spinal cord	4- are 31 pairs of nerves
(e) cerebellum	5- are 12 pairs of nerves
(f) the brain	6- are found inside skull
(g) the two cerebral hemispheres	7- keep the balance of the human body during movement
	8- is the building unit of nervous system

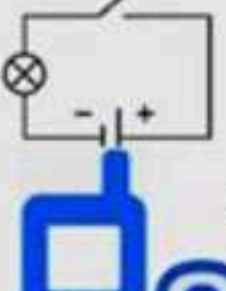
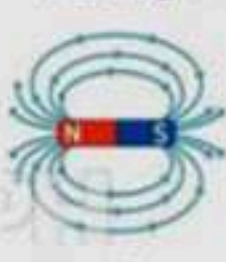
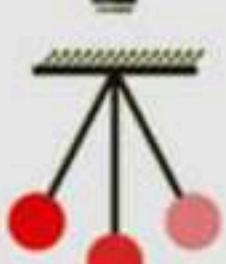
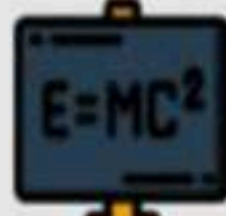
(A)	(B)
(a) vertebral column	1- prevent friction between vertebral
(b) rib cage	2- the position in which bones meet
(c) tendons	3- Long strips join between muscles and bones
(d) joints	4- consists of 33 vertebrae
(e) cartilages	5- consists of 12 pairs of ribs
(f) slightly movable joints	6- allow movement in one direction only
(g) freely movable joints	7- allow movement in all directions
	8- protect the brain and all head organs.

### Therteenth question:

Answer the followings

- 1 A body its mass 10 Kgm, calculate its weight on earth's surface .
- 2 A body its mass 6 kgm, calculate its weight on earth's surface and also calculate its weight on moon's surface.
- 3 Calculate the mass of a body its weight 300 Newton.
- 4 Mention two methods to keep:
  - a Nervous system.
  - b Skeletal system.

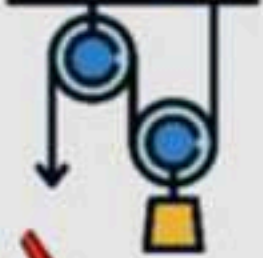
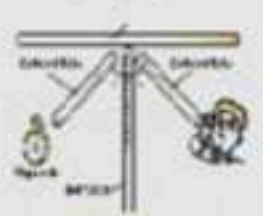




## Model Answer

## Answer first question

1. kilogram - Newton
2. mass of the body - the planet where the body exists - the distance from the center of the Earth
3. 1/6
4. Mass of the body
5. Gravity - weight
6. The force by which the body is attracted to the Earth.
7. Energy
8. Hotness - coldness
9. Let heat to flow through - iron, copper and aluminium
10. Don't let heat to flow through - plastic wood and glass.
11. Processed food
12. Volume - temperature
13. Medical (clinical) thermometer - Celsius thermometer
14. Temperature of liquids
15. Green plants - photosynthesis
16. Respiration, burning
17. Respiration, burning, diving and mechanical ventilation
18. Organic materials - wood and coal - respiration.
- 19- ① It doesn't burn and doesn't help in burning  
 ② It reacts with magnesium forming magnesium oxide (white powder) and carbon or coal (black substance)  
 ③ It is colourless and odourless.  
 ④ It is heavier than air so it is collected by upward displacement of air.  
 ⑤ It is dissolved in water so it is not collected by displacement of water.
- 20- 78%
- 21- Stainless steel
- 22- Central nervous system - peripheral nervous system
- 23- Cerebrum - cerebellum - medulla oblongata
- 24- Skull - backbone - ribcage.





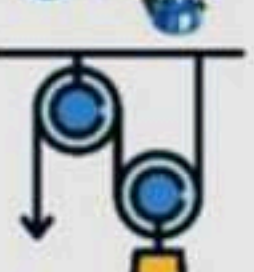
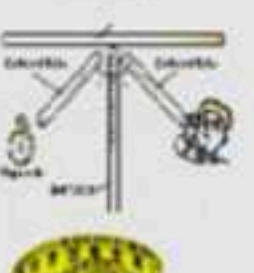
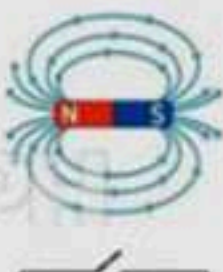
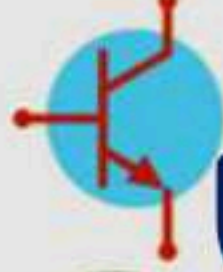
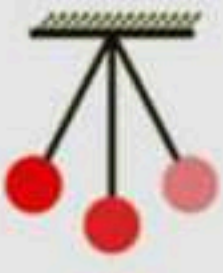
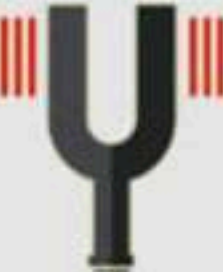


## Answer second question

- 1- (x) mass doesn't change by changing place
- 2- (x) mass
- 3- (x) good conductor
- 4- (x) copper conducts heat faster than Aluminium
- 5- (x) good conductor
- 6- (x) medical thermometer
- 7- (✓)
- 8- (x) lifeless gas
- 9- (✓)
- 10- (✓)
- 11- (x) 12 pairs
- 12- (✓)
- 13- (✓)
- 14- (x) brain (cerebrum)
- 15- (✓)

## Answer third question

- 1- Mass
- 2- Weight
- 3- Good conductors of heat (Heat conductors)
- 4- Bad conductors of heat (Heat Insulators)
- 5- Thermometer
- 6- Carbon dioxide gas
- 7- Oxygen gas
- 8- Carbon dioxide gas
- 9- Nitrogen
- 10- Nerve cell (Neuron)
- 11- Skull
- 12- Spinal cord
- 13- Backbone (vertebral column)
- 14- Involuntary muscles
- 15- Slightly movable joints
- 16- Tendons

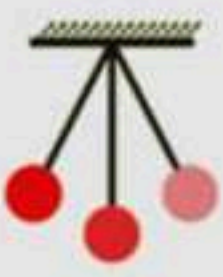
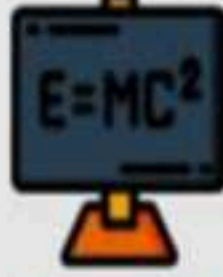






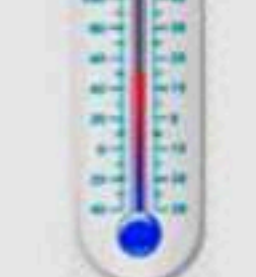
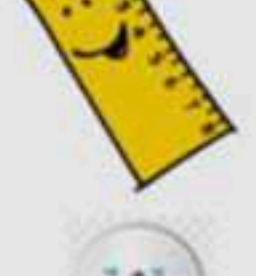
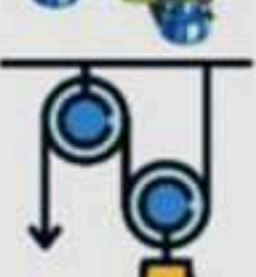
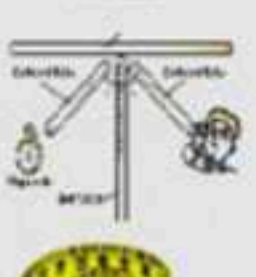
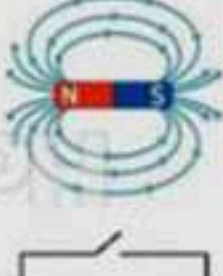
### Answer fourth question

- 1- Slightly movable
- 2- Tendons
- 3- 12 pairs
- 4- Reflex action
- 5- In the back area of the brain below the cerebral hemispheres
- 6- Fatty layer called myelin sheath
- 7- Dendrites or axon terminals
- 8- Is rarely dissolved in water
- 9- Liquefied nitrogen
- 10- Three oxygen atoms
- 11- From 35 to 42
- 12- By different rate
- 13- The mass remains 6 Kg (it doesn't change by changing place)
- 14- 1000gm (1Kg)

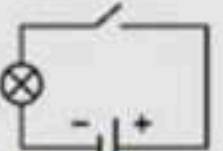
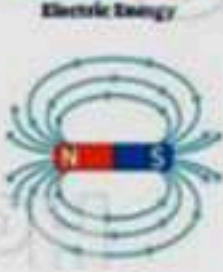
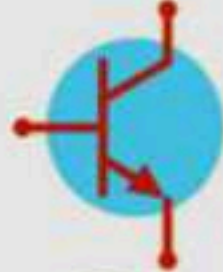
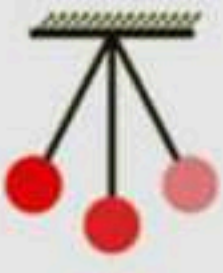
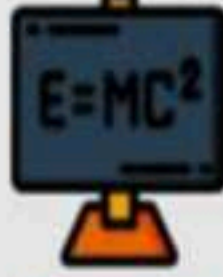


### Answer fifth question

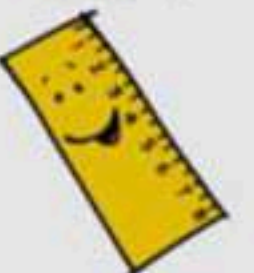
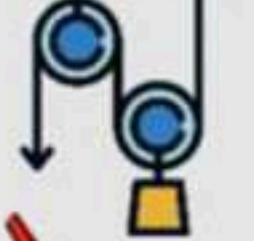
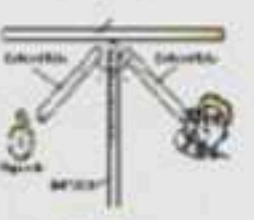
- 1- Slightly movable
- 2- Joints
- 3- Earth
- 4- 10
- 5- 1
- 6- All the previous
- 7- Carbon dioxide
- 8- Calcium carbonate
- 9- Nitrogen





**Answer sixth question**

- 1- Because bodies are attracted to the Earth by gravity
- 2- Because Aluminium is a good conductor of heat while plastic or wood are bad conductors of heat
- 3- To avoid vibrations to measure the mass correctly
- 4- Because the gravitational force of the Earth attracts the hanged body downwards.
- 5- Because as the mass of planet changes, its gravity changes, so the weight of the body changes
- 6- Because the weight of the body decreases when the distance between the body and the center of the Earth increases.
- 7- To prevent mercury from going back quickly to the mercury bulb
- 8- Because it acts as a catalyst in this reaction
- 9- Because it protects the Earth from harmful radiations coming from the sun.
- 10- Because of removal of forests and burning large amounts of fuel in factories and means of transportation.
- 11- Because it doesn't burn and doesn't help in burning
- 12- Because yeast produces carbon dioxide gas (during fermentation) that expands by heating making the bread porous and tasty.
- 13- Because carbon dioxide is important for green plants to make photosynthesis process to make food and oxygen needed for respiration of all living organisms.
- 14- Because ammonia gas is evolved that has a pungent odour.
- 15- Because it doesn't burn and doesn't help in burning and it is also not included in respiration process.
- 16- To keep the nervous system healthy
- 17- Because it keeps the balance of the body during movements
- 18- Because it controls involuntary processes such as heart beats
- 19- Because of the reflex action made by the spinal cord
- 20- To avoid bone diseases such as osteomalacia and rickets







21- Because they are involuntary muscles that moves automatically

22- Because appendicular skeleton consists of:

- Upper limb bones that help us to write , eat, drink, and holding things .
- Lower limb bones that help us in walking, running and holding the whole body.

23- Because muscles generate mechanical energy that moves our bodies.

24- To prevent friction between vertebrae

25- To be protected from any damage

26- Because it leads to decrease in percentage of oxygen gas and increase in the percentage of carbon dioxide gas

27- Because oxygen decreases as we go up because oxygen is heavier than air.

### Answer seventh question

1- It keeps everything on the Earth surface and having weight.

2- They are used to measure temperature

3- It is used to measure large masses such as fruits and vegetables.

4- It is used to measure the weight

5- They are bad conductors of heat that don't let heat to flow through.

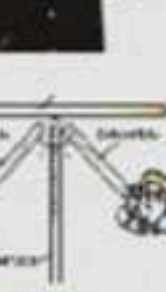
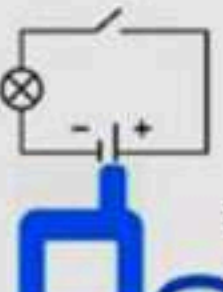
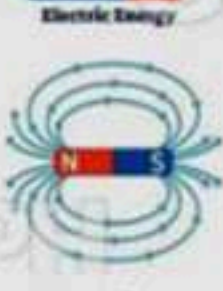
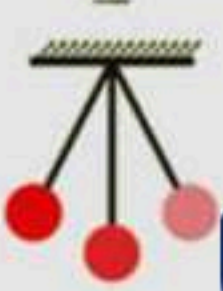
6- It protects the heart and the two lungs

7- They prevent friction between vertebrae.

8- They fix the muscles to the bones

9- They allow movement between bones

10- They connect the nerve cell to other nerve cells to form a synapse.

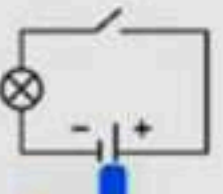
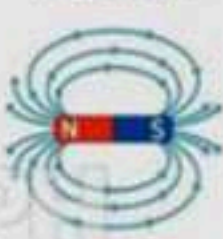
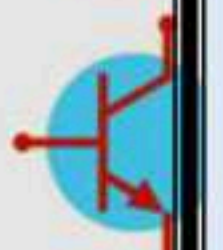
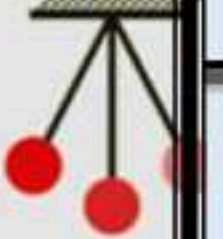
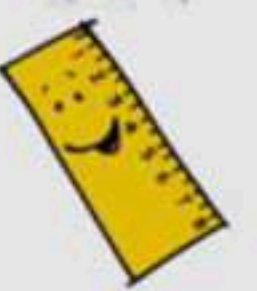
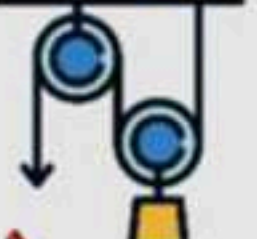
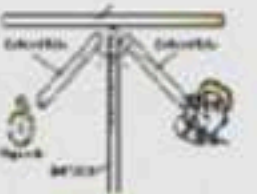






## Answer eighth question

1-



Points of comparison	Balance Scale	Spring Scale
Use	It is used to measure the <b>mass</b> of object	It is used to measure the <b>weight</b> of object

2-

Points of comparison	Central Nervous System	Peripheral Nervous System
Structure	It consists of brain and spinal cord	It consists of cranial nerves and spinal nerves
Function	Brain directs and coordinates all the processes, ideas, behaviors and emotions. Spinal cord delivers the nerve messages from the body organs to the brain and vice versa. Spinal cord is responsible for reflex action.	It delivers the sensory information and the kinetic responses between the central nervous system and all the body parts.

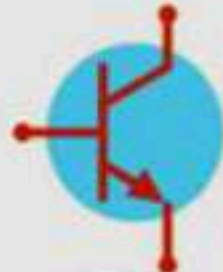
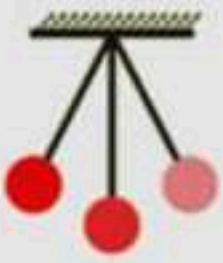


**Answer ninth question**

- 1- They are used in making cooking pots and kettles
- 2- They are used to make handles of cooking pots and kettles.
- 3- It is used for cutting and welding metals.
- 4- It is used to detect the presence of carbon dioxide gas.
- 5- It acts as a catalyst in the decomposition of hydrogen peroxide into oxygen gas and water.
- 6- It is used in making bread, soft drinks, dry ice and extinguishing fires.
- 7- It is used in filling car tires and some types of lamps, in making stainless steel, it forms proteins that build up bodies of all living organisms

**Answer ninth question**

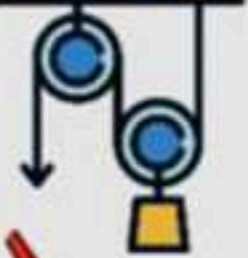
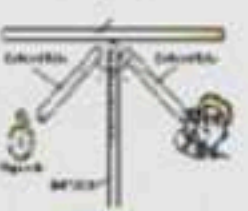
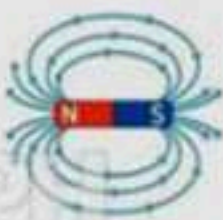
- 1- Mass : it is the amount of matter in an object
- 2- Weight: it is the force by which the object is attracted to the Earth
- 3- Heat: it is the form of energy that transfers from higher temperature object to lower temperature object.
- 4- Temperature: it is the degree of hotness or coldness of a body.
- 5- They are substances that allow the heat to flow through
- 6- They are substances that don't allow heat to flow through

**Answer eleventh question**

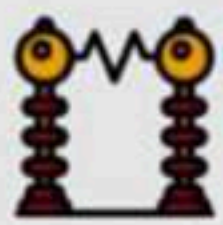
- 1- The mass of the cleansing wire will increase after burning
- 2- The green plant will not make photosynthesis process to produce food and oxygen
- 3- This will cause suffocation of all living organisms
- 4- Proteins that build up bodies of all living organisms can't be formed
- 5- All the object on the Earth surface won't have weight.
- 6- This will lead to nervous tension and affect heart beats and sleeping periods.
- 7- This will cause fracture and sprains.

**Answer twelfth question**

- 1 a- 4 b-3 c-1 d-2
- 2 a-2 b-1 c-3 d-4
- 3 a-5 b-4 c-1 d-3 e-7 f-6 g-2
- 4 a-4 b-5 c-3 d-2 e-1 f-6 g-7





**Answer thirteenth question**

1- Weight = mass  $\times$  10 = 10  $\times$  10 = 100 Newton

2- Weight on the Earth's surface = mass  $\times$  10 = 6  $\times$  10 = 60 Newton

Weight on the moon's surface = weight on the Earth / 6 = 60 / 6 = 10 Newton

3- Mass = Weight / 10 = 300 / 10 = 30 Kg

4-

a.

- Stay away from tranquilizers and stimulants
- Stay away from addiction

b.

- The commitment to vaccination
- Eating healthy food rich in calcium, phosphorous and vitamin D

